FILE COVERS 1907 - 12 Jan 2005 VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005 (20050111/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l47
L48 13 L47

=> d l48 1-13 abs ibib hitstr

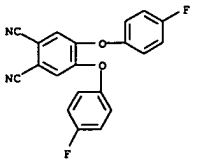
L48 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AB Phthalocyanines solubilized by either 8 or 16 aryloxy or haloaryloxy groups are described. A series of phthalocyanine derivs. were prepared containing In. 1,2-Dinitriles and the corresponding diiminoisoindolines were used as precursors. A naphthalocyanine metalated with In and solubilized with four tert-Bu groups is reported.

ACCESSION NUMBER: 2002:71118 CAPLUS
DOCUMENT NUMBER: 136:272231
TITLE: Synthesis of soluble halogenated aryloxy substituted indium phthalocyanines
AUTHOR(S): Plater, M. John; Jeremiah, Adam; Bourhill, Grant
CORPORATE SOURCE: Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1 (2002), (1), 91-96
CODEN: JCSPCE; ISSN: 1472-7781
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:272231

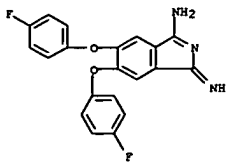
IT **405066-80-0P 405066-86-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(for synthesis of soluble halogenated aryloxy substituted indium phthalocyanines)

RN 405066-80-0 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,5-bis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



RN 405066-86-6 CAPLUS
CN 1H-Isoindol-3-amine, 5,6-bis(4-fluorophenoxy)-1-imino- (9CI) (CA INDEX NAME)

L48 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **405066-96-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of soluble halogenated aryloxy substituted indium phthalocyanines)

RN 405066-96-8 CAPLUS
CN Indium, chloro[2,3,9,10,16,17,23,24-octakis(4-fluorophenoxy)-29H,31H-phthalocyaninato(2-)-κN29,κN30,κN31,κN32]-, (SP-5-12)- (9CI) (CA INDEX NAME)

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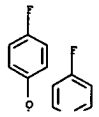

L48 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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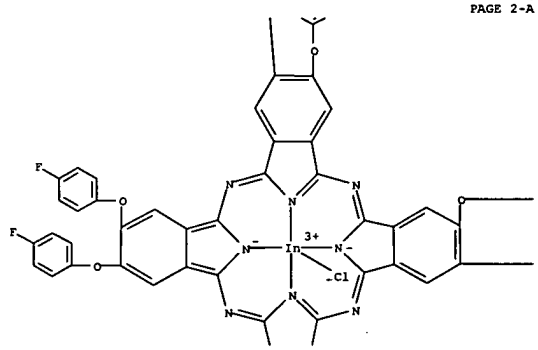

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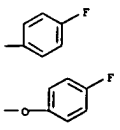

L48 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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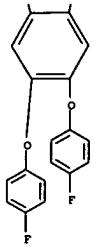


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

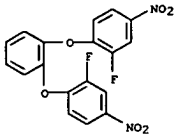
L48 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AB A series of bis(ether amines), primarily 1,2-bis(4-aminophenoxy)benzenes but including 1,3- and 1,4-bis(4-aminophenoxy)benzenes, with fluoro and alkyl substituents were synthesized. These diamines were prepared by F displacement with 4-FC6H4NO2 or its derivs., or NO2 displacement with 1,4-C6H4(NO2)2, and various phenylenediols and their alkyl or fluoro derivs. The resulting bis(ether nitro) compds. were reduced to the corresponding bis(ether amines).

ACCESSION NUMBER: 1998:376601 CAPLUS
DOCUMENT NUMBER: 129:135942
TITLE: Methyl- and fluoro-substituted bis(4-aminophenoxy)benzenes. A convenient method of synthesis
AUTHOR(S): Eastmond, G. C.; Paprotny, J.
CORPORATE SOURCE: Donnan Laboratories, University Liverpool, Liverpool, L69 7ZD, UK
SOURCE: Synthesis (1998), (6), 894-898
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:135942

IT **210492-44-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy}benzenamines)

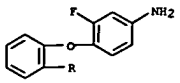
RN 210492-44-7 CAPLUS
CN Benzene, 1,2-bis(2-fluoro-4-nitrophenoxy)- (9CI) (CA INDEX NAME)

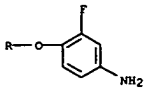


IT **210492-53-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy}benzenamines)

RN 210492-53-8 CAPLUS
CN Benzenamine, 4,4'-[1,2-phenylenebis(oxy)]bis[3-fluoro- (9CI) (CA INDEX NAME)

L48 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)





L48 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AB Mixing a resin and a certain phthalocyanine compound having the ability to absorb near IR rays, provides a resin composition which is useful as a heat radiation-shielding material which is semi-transparent or transparent for visible light but blocks heat rays. C black may also be added to enhance the heat-shielding effect. Thus, polycarbonate containing 0.003% VOPc(BuNH)8F8 [Pc = phthalocyanine; substituent octakis(butylamino)octafluorophthalocyanaine] was molded into a film having transmittance and heat transmittance (JIS R-3106) 78.9 and 62.4%; vs. 89.2 and 84.6, resp., for polycarbonate without the IR absorber.

ACCESSION NUMBER: 1998:79369 CAPLUS
DOCUMENT NUMBER: 128:141505
TITLE: Compositions for shields for heat radiation
INVENTOR(S): Kaleda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Japan
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 180,488, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5712332	A	19980127	US 1995-478739	19950607
PRIORITY APPLN. INFO.:			JP 1993-4326 A	19930113
			US 1994-180488 B2	19940112

OTHER SOURCE(S): MARPAT 128:141505

IT **163464-84-4**
RL: MOA (Modifier or additive use); USES (Uses)
(polymer compns. containing certain phthalocyanines for shields for heat radiation)

RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

L48 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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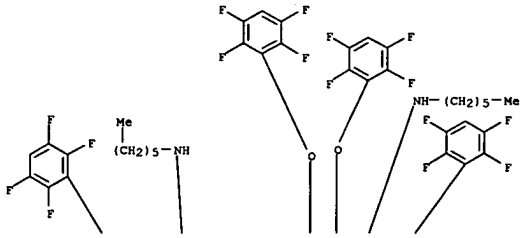

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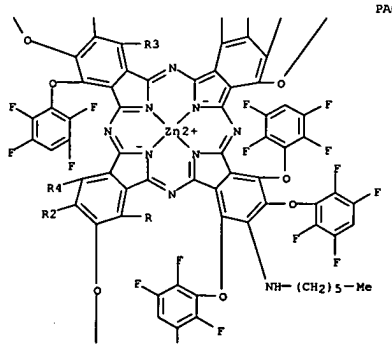

L48 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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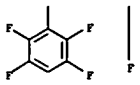

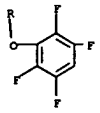

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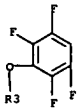

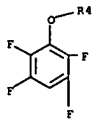

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L48 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AB Facile synthesis of Cp*Ru+ (Cp* = pentamethylcyclopentadienyl) π-complexes of highly electron deficient arens., including 1,3,5-trichloro-, 1,2,4,5-tetrachloro-, pentachloro-, and hexachlorobenzene, is accomplished by the ligand exchange reaction with [Cp*Ru(CH3CN)3]+SO3CF3- in polar solvents under mild reaction conditions. The extraordinary activating ability of the Cp*Ru+ moiety is demonstrated by rapid and quant. nucleophilic substitution reactions of the 1,3,5-tri- and 1,2,4,5-tetrachlorobenzene π-complexes with potassium phenoxide, thiophenoxide, 4-aminophenoxide, 4-chlorophenoxide, and 4-fluorophenoxide.
This methodol. allows syntheses of highly substituted and functionalized aromatic compds.

ACCESSION NUMBER: 1995:701727 CAPLUS
DOCUMENT NUMBER: 123:169866
TITLE: Synthesis and Nucleophilic Substitution of Highly Chlorinated Arene (η5-Pentamethylcyclopentadienyl)ruthenium π-Complexes
AUTHOR(S): Dembek, Alexa A.; Fagan, Paul J.
CORPORATE SOURCE: Experimental Station, DuPont Central Research and Development, Wilmington, DE, 19880-0328, USA
SOURCE: Organometallics (1995), 14(8), 3741-5
CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 123:169866

IT **167227-89-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 167227-89-6 CAPLUS

CN Ruthenium(1+), [(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl][(1,2,3,4,5,6-η)-1,2,4,5-tetrakis(4-fluorophenoxy)benzene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 167227-88-5
CMF C40 H33 F4 O4 Ru
CCI CCS

L48 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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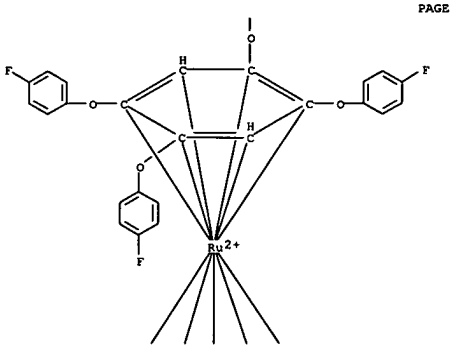

L48 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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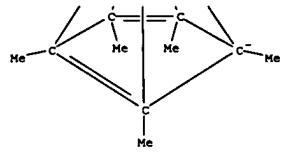

CM 2

CRN 37181-39-8
CMF C F3 O3 S

L48 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AB The phthalocyanines have the formula (R)aMkPc(OR1)b(OR2)cXd, where Pc is a
phthalocyanine nucleus; M is a metal atom; k is the inverse of 1/2 the valency of M; R is a heterocyclic compound or a tertiary amine; each R1 is
aryl or heterocyclyl; each R2 is alkyl or cycloalkyl; each X is H or halogen; a is 1 or 2; b = 1-8; c = 0-4; d = 4-15; and b + c + d = 16. Thus, 4,5-dichlorophthalonitrile was heated 2 h at 120° with 2 equiv p-tert-octylphenol in DMF containing K2CO3 to give 4,5-bis(4-tert-octylphenoxy)phthalonitrile, which was cyclocondensed with FeCl3.6H2O, urea, and NH4 molybdate to give the octakis-substituted FePc, which was heated in pyridine to give the dipyridyl complex as a bright green solid with λmax 658 nm in toluene.
ACCESSION NUMBER: 1995:662388 CAPLUS
DOCUMENT NUMBER: 123:85956
TITLE: Substituted metal phthalocyanines
INVENTOR(S): Reynolds, Stephen James; White, Raymond Lesley
PATENT ASSIGNEE(S): Zeneca Ltd., UK
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 638614	A1	19950215	EP 1994-305325	19940720
R: CH, DE, FR, GB, IT, LI				
JP 07070458	A2	19950314	JP 1994-190542	19940812
PRIORITY APPLN. INFO.:			GB 1993-16820 A	19930812

OTHER SOURCE(S): MARPAT 123:85956
IT **164652-85-1P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of substituted metal phthalocyanines)
RN 164652-85-1 CAPLUS
CN Iron, [2,3,9,10,16,17,23,24-octakis(4-fluorophenoxy)-29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]bis(pyridine)-, (OC-6-12)- (9CI) (CA
INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

L48 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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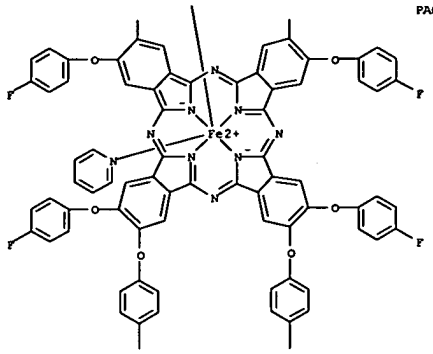

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L48 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
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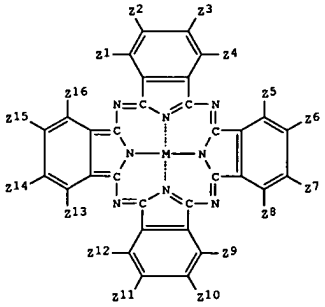

I

AB The mixts. contain a transparent resin [e.g., polycarbonate, poly(Me methacrylate), PVC, or poly(ethylene terephthalate)], a near-IR-absorbing phthalocyanine compound I (Z1-16 = SR1, OR2, H, halo, NHY; ≥1 of Z1-16 = NHY; R1-2 = Ph, substituted Ph, C1-20 alkyl; Y = Ph, substituted Ph, C1-8 alkyl; M = VO, Zn, Cu, SnCl2, Co, etc.), and, optionally, carbon black. Replacing part of the I with carbon black does not decrease the heat-radiation-shielding ability of the mixts. The mixts. are useful as moldings which transmit visible light while blocking near-IR radiation (i.e., they absorb the heat from sunlight).
ACCESSION NUMBER: 1995:550904 CAPLUS
DOCUMENT NUMBER: 122:316019
TITLE: Heat-radiation-shielding mixtures of polymers and near-IR-absorbing phthalocyanine compounds
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 607031	A1	19940720	EP 1994-300205	19940112
EP 607031	B1	19991006		
R: BE, DE, ES, FR, GB, IT, NL				
JP 06264050	A2	19940920	JP 1993-352128	19931229
ES 2136700	T3	19991201	ES 1994-300205	19940112

L48 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
PRIORITY APPLN. INFO.: JP 1993-4326 A 19930113

OTHER SOURCE(S): MARPAT 122:316019
IT **163464-84-4**
RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(near-IR absorber; heat-radiation-shielding compns. containing polymers
and)
RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)-
(9CI) (CA INDEX NAME)

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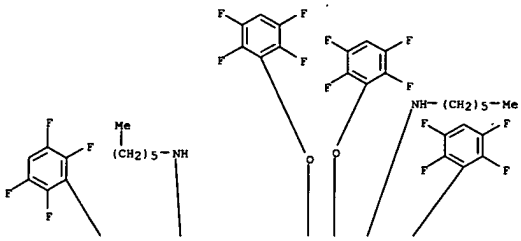

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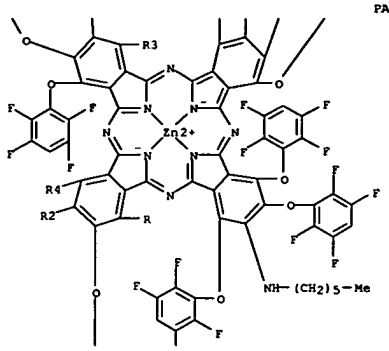

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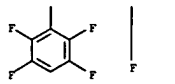

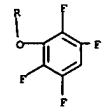

Me—(CH2)5—NH—R2

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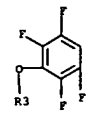
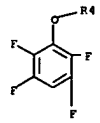




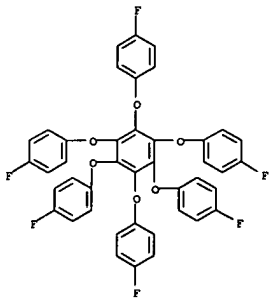
AB Hexafluorobenzene reacts readily with a variety of trimethylsilyl ethers ROSiMe3 (R = CF3CH2, FCH2CH2, H(CF2)nCH2 (n = 2, 4), CF3(CF2)6CH2, CF3(CF2)5CH2CH2, Me3SiOCH2CH2, C6F5OCH2CH2, C6H5, 4-FC6H4) to give from mono- to hexapolyfluoroalkoxy- and polyfluoroaryloxy-benzenes. The structure of C6(OCH2CF3)6 has been confirmed by single-crystal X-ray anal.

The perfluorinated ether C6F5OCF2CF3 may be synthesized from C6F5OCH2CF3 by chlorination and subsequent fluorination with SbF3 /SbCl5. The chlorination of 5,6,7,8-tetrafluoro-1,4-benzodioxane is also discussed.

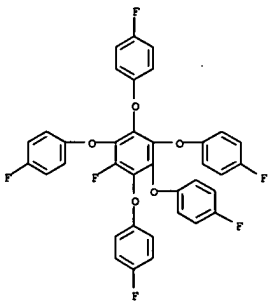
ACCESSION NUMBER: 1995:57102 CAPLUS
DOCUMENT NUMBER: 122:31037
TITLE: Reaction of hexafluorobenzene with trimethylsilyl ethers
AUTHOR(S): Zhang, Y. F.; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Journal of Fluorine Chemistry (1994), 68(3), 287-92
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:31037

IT **159752-90-6 159752-93-9 159752-94-0**
RL: PRP (Properties)
(reaction of hexafluorobenzene with trimethylsilyl ethers)

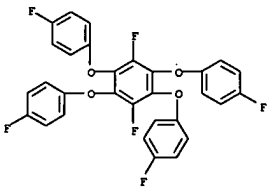
RN 159752-90-6 CAPLUS
CN Benzene, hexakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



RN 159752-93-9 CAPLUS
CN Benzene, fluoropentakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



RN 159752-94-0 CAPLUS
CN Benzene, 1,4-difluoro-2,3,5,6-tetrakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



L48 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I, useful as material for hardeners for fluorinated epoxy resins (no data), is prepared via II [R = cyano, CO2H]. Thus, a mixture of tetrafluorophthalonitrile, tetrafluorohydroquinone, and Et3N in DMF was heated at 35° for 30 to give 21% II [R = cyano], which was treated with 60% H2SO4 at 150° for 5 h to give 26% II [R = CO2H], which was refluxed with Ac2O for 2 h to 52% I.

ACCESSION NUMBER: 1994:630662 CAPLUS
DOCUMENT NUMBER: 121:230662
TITLE: preparation of a perfluorinated hexacarboxylic acid as material for hardeners for fluorinated epoxy resins
INVENTOR(S): Sasaki, Shigekuni; Matsura, Tooru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

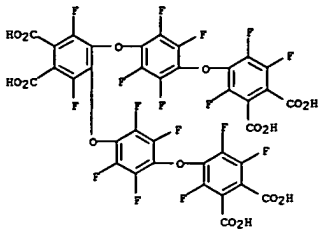
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06157501	A2	19940603	JP 1992-340986	19921130
PRIORITY APPLN. INFO.:			JP 1992-340986	19921130

OTHER SOURCE(S): CASREACT 121:230662

IT **158394-12-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion into trianhydride)

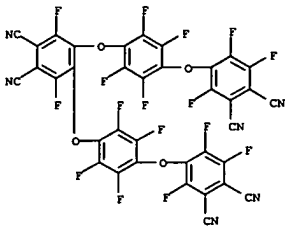
RN 158394-12-8 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,5-bis[4-(3,4-dicarboxy-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)

L48 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **158394-11-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

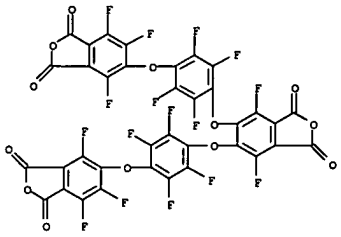
RN 158394-11-7 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,5-bis[4-(3,4-dicyano-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)



IT **158394-13-9P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of a perfluorinated hexacarboxylic acid as material)

RN 158394-13-9 CAPLUS
CN 1,3-Isobenzofurandione, 4,7-difluoro-5,6-bis[2,3,5,6-tetrafluoro-4-[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)oxy]phenoxy]- (9CI) (CA INDEX NAME)

L48 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L48 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AB Metal or nonmetal complexes of 1,4,8,11,15,18,22,25-octafluorophthalocyanines in which the 2-, 3-, 9-, 10-, 16-, 17-, 23-, and 24-positions are substituted with F, substituted phenoxy, substituted phenylthio, (un)substituted anilino, alkylamino, substituted alkoxy, or substituted alkylthio groups, not all being F, are prepared directly from the appropriate phthalonitriles or by substitution reactions on the hexadecafluorophthalocyanine complexes. Thus, reaction of tetrafluorophthalonitrile with PhSH and KF in MeCN at 50° for 12 h gave 3,6-difluoro-4,5-bis(phenylthio)phthalonitrile, which was heated with ZnI2 in α-ClC10H7 at 200° to give the ZnPc derivative; this was sulfonated with ClSO3H in CHCl2CHCl2 to introduce 15 sulfo groups/mol. on the phenylthio groups. The product had λmax 725.0 nm in EtOH and 700 nm in H2O and showed solubility of 10% in EtOH, 19% in EtOCH2CH2OH, and 12% in H2O; its IR spectrum and those of 30 addnl. phthalocyanines are given.

ACCESSION NUMBER: 1993:429981 CAPLUS
DOCUMENT NUMBER: 119:29981
TITLE: Fluorophthalocyanines, their preparation, and near infrared ray-absorbing materials containing them
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Itoh, Hideki; Onozaki, Miho
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 78 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

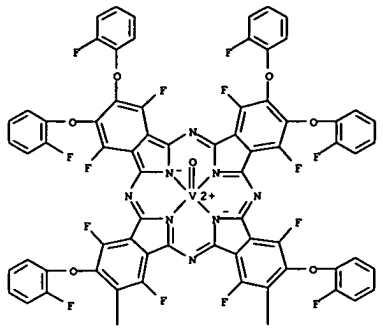
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 523959	A2	19930120	EP 1992-306443	19920714
EP 523959	A3	19940316		
EP 523959	B1	19991013		
R: CH, DE, FR, GB, IT, LI, NL				
JP 05078364	A2	19930330	JP 1992-42586	19920228
JP 2907624	B2	19990621		
US 5359056	A	19941025	US 1992-913028	19920714
JP 05345861	A2	19931227	JP 1992-274125	19921013
JP 2812624	B2	19981022		
PRIORITY APPLN. INFO.:			JP 1991-174019	A 19910715
			JP 1992-42586	A 19920228
			JP 1992-94522	A 19920414
			JP 1991-33276	A1 19910228

OTHER SOURCE(S): MARPAT 119:29981

IT **147712-52-5P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of near-IR-absorbing)

RN 147712-52-5 CAPLUS
CN Vanadate(8-), [1,4,8,11,15,18,22,25-octafluoro-2,3,9,10,16,17,23,24-octakis(2-fluorophenoxy)-29H,31H-phthalocyaninato(10-)-κN29,κN30,κN31,κN32]oxo-, octahydrogen, octasulfo deriv. (9CI) (CA INDEX NAME)

PAGE 1-A



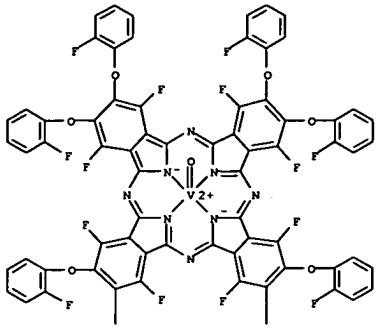
PAGE 2-A

8 [D1—SO_3^-]

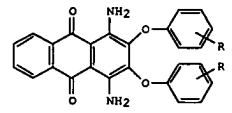
●8 H^+

IT 148131-11-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfonation of)
RN 148131-11-7 CAPLUS
CN Vanadium,
{1,4,8,11,15,18,22,25-octafluoro-2,3,9,10,16,17,23,24-octakis(2-fluorophenoxy)-29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32}oxo-,

PAGE 1-A



PAGE 2-A



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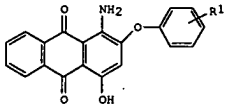


II

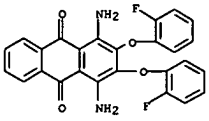
AB Sublimation type thermal recording transfer sheets contain a dye component
comprising ≥1 dye I (R = H, halo, CF3, alkyl, alkoxy) and ≥1 dye II [R1 = H, halo, OH, CF3, alkyl, alkoxy, aralkyloxy, alkoxyalkoxy, aryloxyalkoxy, acyl, alkylcarbonyloxy, (N-substituted) carbamoyl, alkylsulfonyl, arylsulfonyl, (N-substituted) sulfamoyl, alkylsulfonyloxy, arylsulfonyloxy]. The dyes have good solubility or dispersibility in resins,
and the transfer sheets exhibit good transferability and provide stable, high color quality images. Thus, a mixture of Et cellulose 6, I (R = H) 1,
and II (R1 = OMe-4) 1 part was coated on a PET film to give a thermal transfer film, which gave clear magenta images with high d. and good lightfastness.

ACCESSION NUMBER: 1989:523963 CAPLUS
DOCUMENT NUMBER: 111:123963
TITLE: Thermal recording transfer sheets containing two kinds
of anthraquinone type dyes
INVENTOR(S): Hashimoto, Kyoyasu; Suzuki, Yasuyuki
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

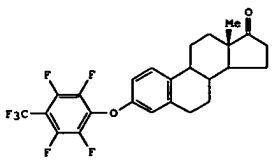
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01077584	A2	19890323	JP 1987-235450	19870918
PRIORITY APPLN. INFO.:			JP 1987-235450	19870918

IT 122533-59-9
RL: USES (Uses)

RN 122533-59-9 CAPLUS
CN 9,10-Anthracenedione, 1,4-diamino-2,3-bis(2-fluorophenoxy)- (9CI) (CA INDEX NAME)



L48 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
GI



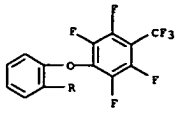
II

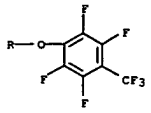
AB Reaction of perfluoroarenes with alcs. and phenols, especially steroids, under
phase-transfer catalysis gave perfluoroaryl ethers. These could be selectively cleaved with NaOMe in DMF. E.g., reaction of estrone (I) with
F3CC6F5 in CH2Cl2 containing Bu4N+ HSO4- and aqueous NaOH at room temperature gave 95%

3-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]estra-1,3,5-trien-17-one (II). Cleavage of II with NaOMe in DMF at 10° for 2 h gave 87% I.

ACCESSION NUMBER: 1985:471577 CAPLUS
DOCUMENT NUMBER: 103:71577
TITLE: Octafluorotoluene as a reagent for the selective protection of alcoholic and phenolic functions. Synthesis and cleavage of perfluorotolyl and other perfluoroaryl ethers of steroids and other model compounds
AUTHOR(S): Jarman, Michael; McCague, Raymond
CORPORATE SOURCE: Cancer Res. Campaign Lab., Inst. Cancer Res., Sutton, SM2 5PX, UK
SOURCE: Journal of Chemical Research, Synopses (1985), (4), 114-15
CODEN: JRPSDC; ISSN: 0308-2342
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:71577
IT **97631-77-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 97631-77-1 CAPLUS
CN Benzene, 1,2-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)

L48 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



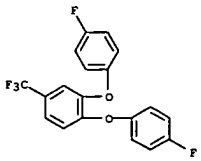


L48 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AB Reaction of phenols with Br2C6H3CF3 at 170-300° in the presence of Cu and alkali gave mono- and diphenoxybenzotrifluorides. Thus, 2,5- and 3,4-Br2C6H3CF3, powdered Cu, KI, and m-CF3C6H4OH at 200-20° gave 10.6 (m-CF3C6H4O)C6H4CF3, 25.4 (m-CF3C6H4O)C6H3BrCF3, and 42.4% (m-CF3C6H4O)2C6H3CF3 isomers.

ACCESSION NUMBER: 1975:170346 CAPLUS
DOCUMENT NUMBER: 82:170346
TITLE: Phenoxy derivatives of trifluoromethylbenzene
INVENTOR(S): Schlafke, Rolf; Jenkner, Herbert
PATENT ASSIGNEE(S): Chemische Fabrik Kalk G.m.b.H.
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

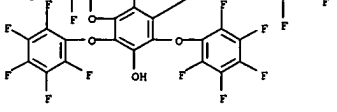
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2325878	A1	19741212	DE 1973-2325878	19730522
PRIORITY APPLN. INFO.:			DE 1973-2325878 A	19730522

IT **54846-40-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54846-40-1 CAPLUS
CN Benzene, 1,2-bis(4-fluorophenoxy)-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl
ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).

ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts
Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **53279-71-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53279-71-3 CAPLUS
CN 1,4-Benzenediol, 2,3,5,6-tetrakis(pentafluorophenoxy)- (9CI) (CA INDEX NAME)



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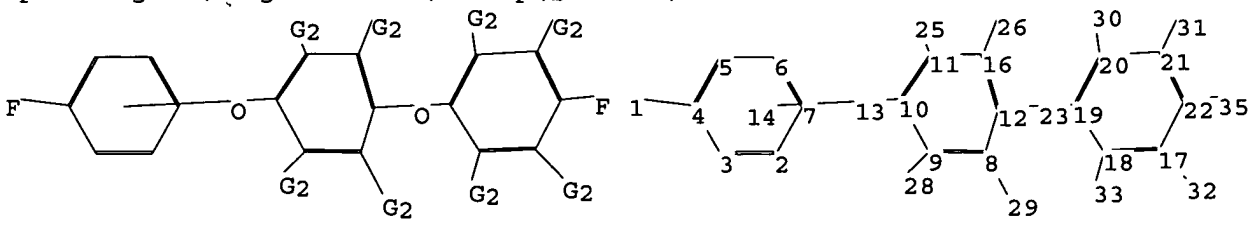


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1-4  8-29  9-28  10-13  11-25  12-23  16-26  17-32  18-33  19-23  20-30  21-31
22-35
ring bonds :
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exact/norm bonds :
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exact bonds :
1-4  22-35
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normalized bonds :
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18-19 19-20 20-21 21-22

G1:N,X

G2:X,Ak,H

Match level :
1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom 22:Atom 23:CLASS 25:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS
31:CLASS 32:CLASS 33:CLASS 35:CLASS

L49 STRUCTURE UPLOADED

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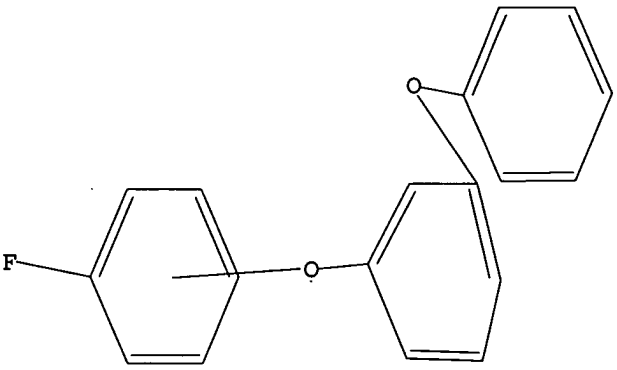

G1 N,X

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 127 ITERATIONS 14 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1864 TO 3216
PROJECTED ANSWERS: 56 TO 504

L50 14 SEA SSS SAM L49

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SEARCH TIME: 00.00.01

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IDE    - FIDE, but only 50 names
SQIDE  - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD    - Protein sequence data, includes RN
SQD3   - Same as SQD, but 3-letter amino acid codes are used
SQN    - Protein sequence name information, includes RN

CALC   - Table of calculated properties
EPROP  - Table of experimental properties
PROP   - EPROP and CALC

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CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

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IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
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The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

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The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats. The predefined substance formats
are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance. The substance formats
must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.

For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):bib.
'BIB' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats. The predefined substance formats
are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance. The substance formats
must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,

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with text labels.

For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):abs
'ABS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG    - RN
SAM    - Index Name, MF, and structure - no RN
FIDE   - All substance data, except sequence data
IDE    - FIDE, but only 50 names
SQIDE  - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD    - Protein sequence data, includes RN
SQD3   - Same as SQD, but 3-letter amino acid codes are used
SQN    - Protein sequence name information, includes RN

CALC   - Table of calculated properties
EPROP  - Table of experimental properties
PROP   - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance.  The substance formats
must be cited first.  The CA File predefined formats are:

ABS  -- Abstract
APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.
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For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):none
'NONE' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats.  The predefined substance formats
are:  (RN = CAS Registry Number)

REG    - RN
SAM    - Index Name, MF, and structure - no RN
FIDE   - All substance data, except sequence data
IDE    - FIDE, but only 50 names
SQIDE  - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD    - Protein sequence data, includes RN
SQD3   - Same as SQD, but 3-letter amino acid codes are used
SQN    - Protein sequence name information, includes RN

CALC   - Table of calculated properties
EPROP  - Table of experimental properties
PROP   - EPROP and CALC

Any CA File format may be combined with any substance format to
obtain CA references citing the substance.  The substance formats
must be cited first.  The CA File predefined formats are:

ABS  -- Abstract
APPS -- Application and Priority Information
BIB  -- CA Accession Number, plus Bibliographic Data
CAN  -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND  -- Index Data
IPC  -- International Patent Classification
PATS -- PI, SO
STD  -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when
it is available.
The MAX format is the same as ALL.
The IALL format is the same as ALL with BIB ABS and IND indented,
with text labels.
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For additional information, please consult the following help
messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
<------User Break------>

ENTER DISPLAY FORMAT (IDE): rn
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L51 ANSWER 192 OF 194 REGISTRY COPYRIGHT 2005 ACS on STN
RN 14796-04-4 REGISTRY

L51 ANSWER 193 OF 194 REGISTRY COPYRIGHT 2005 ACS on STN
RN 5026-82-4 REGISTRY

L51 ANSWER 194 OF 194 REGISTRY COPYRIGHT 2005 ACS on STN
RN 5026-81-3 REGISTRY

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=> d his

     (FILE 'HOME' ENTERED AT 19:20:11 ON 12 JAN 2005)

     FILE 'REGISTRY' ENTERED AT 19:20:22 ON 12 JAN 2005
L1             STRUCTURE UPLOADED
L2           0 S L1
L3           2 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 19:20:55 ON 12 JAN 2005
L4           1 S L3

     FILE 'REGISTRY' ENTERED AT 19:21:43 ON 12 JAN 2005
L5             STRUCTURE UPLOADED
L6           0 S L5
L7           2 S L5 FULL

     FILE 'CAPLUS' ENTERED AT 19:22:28 ON 12 JAN 2005
L8           0 S L7
L9           0 S L7

     FILE 'REGISTRY' ENTERED AT 19:22:54 ON 12 JAN 2005
L10            STRUCTURE UPLOADED
L11          2 S L10 FULL

     FILE 'CAOLD' ENTERED AT 19:23:44 ON 12 JAN 2005
L12          1 S L11

     FILE 'REGISTRY' ENTERED AT 19:24:58 ON 12 JAN 2005

     FILE 'REGISTRY' ENTERED AT 19:26:23 ON 12 JAN 2005
L13            STRUCTURE UPLOADED
L14          0 S L13
L15          6 S L13 FULL

     FILE 'CAPLUS' ENTERED AT 19:26:57 ON 12 JAN 2005
L16          2 S L15

     FILE 'REGISTRY' ENTERED AT 19:27:31 ON 12 JAN 2005
L17            STRUCTURE UPLOADED
L18          0 S L17
L19          2 S L17 FULL

     FILE 'CAPLUS' ENTERED AT 19:28:57 ON 12 JAN 2005
L20          0 S L19

     FILE 'REGISTRY' ENTERED AT 19:29:05 ON 12 JAN 2005

     FILE 'REGISTRY' ENTERED AT 19:29:28 ON 12 JAN 2005

     FILE 'REGISTRY' ENTERED AT 19:29:38 ON 12 JAN 2005
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               DEL SEL Y
               SEL L19 2 RN
L21          1 S E1/RN
               SET TERMSET LOGIN

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L22          1 S L21
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     FILE 'REGISTRY' ENTERED AT 19:30:10 ON 12 JAN 2005
L23             STRUCTURE UPLOADED
L24           1 S L23
L25          56 S L23 FULL

     FILE 'CAPLUS' ENTERED AT 19:30:52 ON 12 JAN 2005
L26          39 S L25

     FILE 'REGISTRY' ENTERED AT 19:41:56 ON 12 JAN 2005
L27             STRUCTURE UPLOADED
L28           0 S L27
L29          31 S L27 FULL

     FILE 'CAPLUS' ENTERED AT 19:43:02 ON 12 JAN 2005
L30          14 S L29

     FILE 'REGISTRY' ENTERED AT 19:46:27 ON 12 JAN 2005
L31             STRUCTURE UPLOADED
L32           0 S L31
L33          10 S L31 FULL

     FILE 'CAPLUS' ENTERED AT 19:47:32 ON 12 JAN 2005
L34           4 S L33

     FILE 'REGISTRY' ENTERED AT 19:48:14 ON 12 JAN 2005
L35             STRUCTURE UPLOADED
L36           1 S L35
L37           9 S L35 FULL

     FILE 'CAPLUS' ENTERED AT 19:48:58 ON 12 JAN 2005
L38           5 S L37

     FILE 'REGISTRY' ENTERED AT 19:49:43 ON 12 JAN 2005
L39             STRUCTURE UPLOADED
L40           2 S L39
L41         271 S L39 FULL

     FILE 'CAPLUS' ENTERED AT 19:50:32 ON 12 JAN 2005
L42         231 S L41

     FILE 'REGISTRY' ENTERED AT 20:14:18 ON 12 JAN 2005
L43             STRUCTURE UPLOADED
L44           1 S L43
L45             STRUCTURE UPLOADED
L46           0 S L45
L47          23 S L45 FULL

     FILE 'CAPLUS' ENTERED AT 20:17:16 ON 12 JAN 2005
L48          13 S L47

     FILE 'REGISTRY' ENTERED AT 20:18:50 ON 12 JAN 2005
L49             STRUCTURE UPLOADED
L50          14 S L49
L51         194 S L49 FULL

=> fil caplus
COST IN U.S. DOLLARS                        SINCE FILE      TOTAL
                                               ENTRY    SESSION
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FULL ESTIMATED COST	201.85	3556.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-226.30

FILE 'CAPLUS' ENTERED AT 20:21:48 ON 12 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

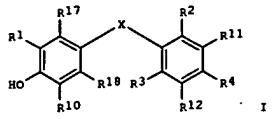
FILE COVERS 1907 - 12 Jan 2005 VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005 (20050111/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l51
L52 54 L51

=> d l52 1-54 abs ibib hitstr

L52 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



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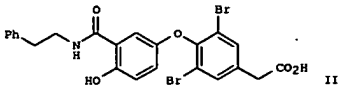


II

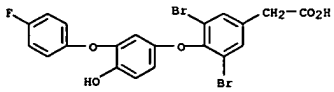
AB Thyroid receptor ligands are provided which have the general formula I [wherein: R1 = (un)substituted CONR5R6, CH2NR5R6, NR5COR6, OR7, R8, 4-R9-4,5-dihydrooxazol-2-yl; R2, R3 = H, halo, C1-4 alkyl or C3-5 cycloalkyl, provided that at least 1 of R2 and R3 ≠ H; R4 = (CH2)nR13 or (CH2)nCONR16CR13R14R15; R5, R6 = H, (hetero)aryl, (cyclo)alkyl, or (hetero)aralkyl; R7 = (hetero)aryl, alkyl, or (hetero)aralkyl; R8 = (hetero)aryl or cycloalkyl; R9 = R7 or H; R10 = H, halo, cyano, or alkyl; R11, R12 = H, halo, alkoxy, OH, cyano, or alkyl; R13 = COOH and esters, phosphonic and phosphinic acid and esters, sulfonic acid, tetrazole, hydroxamic acid, thiazolidinedione, acylsulfonamide, or other carboxylic acid surrogates; R14, R15 = H, alkyl; or R14R15 = (CH2)2-5, forming 3- to 6-membered cycloalkyl rings; R16 = H or C1-4 alkyl; R17 and R18 = H, halo, or alkyl; n = 0-4; X = O, S, S(O)2, S(O), Se, CO, NH, or CH2]. In addition, a method is provided for preventing, inhibiting or treating diseases or disorders associated with metabolism dysfunction, or which are dependent upon the expression of, a T3 regulated gene, wherein a compound I is administered therapeutically. Claims cover the above, as well as pharmaceutical compns. containing I, and methods of coadministration of I with other compds., particularly certain antidiabetic agents. Compds. I include selective agonists, partial agonists, antagonists, and partial antagonists of thyroid receptors (no data). Approx. 168 compds. were prepared For instance, Me (3,5-dibromo-4-hydroxyphenyl)acetate underwent O-arylation with (4-MeOC6H4)2I+ BF4-, and the resultant 4-methoxyphenyl ether derivative underwent a sequence of: (1) formylation in the 3-position, (2) O-demethylation, (3) oxidation of the aldehyde to an acid, (4) amidation of the acid, and (5) alkaline saponification of the ester, to give title compound II.

ACCESSION NUMBER: 2004:927006 CAPLUS
DOCUMENT NUMBER: 141:395288
TITLE: New [3,5-dihalo-4-(4-hydroxyphenoxy)phenyl]acetic acid derivatives useful as thyroid receptor ligands, and their preparation, pharmaceutical compositions, and methods of use
INVENTOR(S): Ryono, Dennis E.; Hangeland, Jon J.; Friends, Todd J.; Dejneka, Tamara; Devasthale, Pratik; Caringal, Yolanda V.; Zhang, Minsheng; Doweyko, Arthur M. P.; Malm, Johan; Sanin, Andrei
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004093799	A2	20041104	WO 2004-US11883	20040416
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005004184	A1	20050106	US 2004-826100	20040415
PRIORITY APPLN. INFO.:			US 2003-463774P	P 20030418

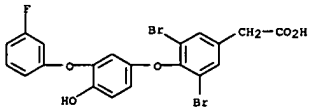
IT **788823-34-7P 788823-43-8P 788823-46-1P 788823-51-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of [dihalo(hydroxyphenoxy)phenyl]acetic acid derivs. as thyroid receptor ligands)

RN 788823-34-7 CAPLUS
CN Benzeneacetic acid, 3,5-dibromo-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-(9CI) (CA INDEX NAME)

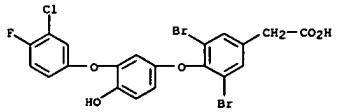


RN 788823-43-8 CAPLUS
CN Benzeneacetic acid, 3,5-dibromo-4-[3-(3-fluorophenoxy)-4-hydroxyphenoxy]-(9CI) (CA INDEX NAME)

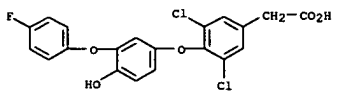
L52 ANSWER 1 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 788823-46-1 CAPLUS
CN Benzeneacetic acid, 3,5-dibromo-4-[3-(3-chloro-4-fluorophenoxy)-4-hydroxyphenoxy]- (9CI) (CA INDEX NAME)



RN 788823-51-8 CAPLUS
CN Benzeneacetic acid, 3,5-dichloro-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-(9CI) (CA INDEX NAME)

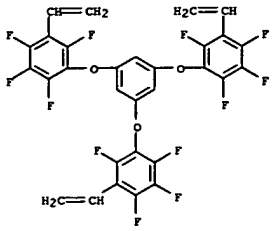


L52 ANSWER 2 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB A F compound has perfluorostyrene introduced at a terminal end, characterized in that the introduction of perfluorostyrene results in a facile fabrication of thin films by a UV curing or a thermal curing, high thermal stability and chemical resistance, and low optical propagation loss and birefringence when applied to waveguides. The structure of the F compound is represented by [CH2:CHC6F4Z]yRf(ZArZRf)x[ZC6F4CH:CH2]y', where Z = O or S; Rf = aliphatic or aromatic group; y = 1-10, yr' = 0-1; x = 0-200; Ar = MeC6F4RC6F4Me or C6F3MeX; R = direct single bond, CO, SO2, S and O, and X = F, Cl, Br and I.

ACCESSION NUMBER: 2004:534012 CAPLUS
DOCUMENT NUMBER: 141:90579
TITLE: Perfluorostyrene compound, and coating solution and optical waveguide device using the compound
INVENTOR(S): Kim, Ji-hyang; Kim, Jae-il; Kim, Tae-kyun; Lee, Hyung Jong; Han, Seon Gyu
PATENT ASSIGNEE(S): Zen Photonics Co., Ltd., S. Korea
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004127632	A1	20040701	US 2003-616889	20030710
PRIORITY APPLN. INFO.:			KR 2002-40901 A	20020712

OTHER SOURCE(S): MARPAT 141:90579
IT **713525-85-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and copolymn.; perfluorostyrene-terminated photopolymerizable compound for core and cladding layers of optical waveguide device)
RN 713525-85-0 CAPLUS
CN Benzene, 1,3,5-tris(3-ethenyl-2,4,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)



AB Vinyl aromatic compds. P2C:CPC6X5-nZn, are prepared, in which P = H, D or mixture; Z = -YC6X5, -YWU[(o-, m-, p-C6X4CP:CP2)]m , -YV and mixts.; Y and U = O, S, NH, or is not present; V and W = monovalent group and a linking group selected from aromatic, polycyclic aromatic (fused-ring), 5- or 6-member heterocyclic aromatic and polycyclic-heterocyclic compds., and derivs. where ≥1 ring C-H bonds are replaced by C-X bonds; X = F, Cl, CF3 and Rf, and mixts., and Rf = C2-C5 hydrocarbon in which ≥50% C-H bonds are replaced by C-F bonds; m and n = 1-3. The compds., when used as polymeric materials in optical communications devices result in devices with low power losses.

ACCESSION NUMBER: 2004:286761 CAPLUS
DOCUMENT NUMBER: 140:304235
TITLE: Halogenated styrene compounds, radiation curable composition, low-absorption-loss polymers and their synthesis
INVENTOR(S): Roux, Stephane; Arnoud, Olivier; Moroni, Marc
PATENT ASSIGNEE(S): Corning Incorporated, USA
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

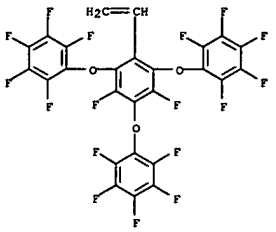
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1405849	A1	20040407	EP 2002-292461	20021004
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2004077874	A1	20040422	US 2003-667530	20030922
PRIORITY APPLN. INFO.:			EP 2002-292461 A	20021004

OTHER SOURCE(S): MARPAT 140:304235

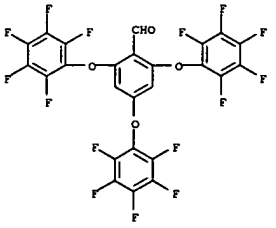
IT **676515-14-3P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(halogenated styrene compds. for low-absorption-loss polymers for waveguides)
RN 676515-14-3 CAPLUS
CN Benzene, 1-ethenyl-3,5-difluoro-2,4,6-tris(pentafluorophenoxy)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

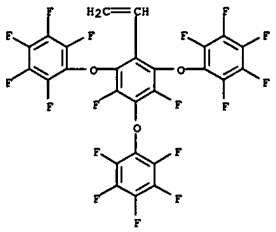
CRN 676515-05-2
CMF C26 H3 F17 O3



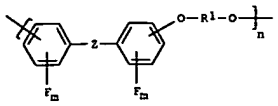
IT **676515-04-1P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(halogenated styrene compds. for low-absorption-loss polymers for waveguides)
RN 676515-04-1 CAPLUS
CN Benzaldehyde, 2,4,6-tris(pentafluorophenoxy)- (9CI) (CA INDEX NAME)



IT **676515-05-2P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and polymerization; halogenated styrene compds. for low-absorption-loss polymers for waveguides)
RN 676515-05-2 CAPLUS
CN Benzene, 1-ethenyl-3,5-difluoro-2,4,6-tris(pentafluorophenoxy)- (9CI) (CA
INDEX NAME)



L52 ANSWER 4 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The F-containing poly(aryl ethers), showing high heat resistance and mech.
strength, contain I units (R1 = C1-150 divalent organic group; Z = divalent
organic group, single bond; n = 1-4) and have OH and/or phosphoric acid
groups in R1. Solvent-soluble widely-useful engineering plastics are manufactured
using compds. containing 2 of phenolic OH groups and ≥1 alc. OH groups
as starting materials. Also claimed are ionic conductors, useful for
electrolyte membranes in fuel cells, etc., comprising F-containing poly(aryl
ethers) having OH, carboxy, and/or PO3H groups and proton conductivity-imparting
agents. Thus, 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl) di-Ph ether was
copolymd. with Epicure 171N (resin) to give F-containing polyether-polyketone,
which was mixed with tungstophosphoric acid and cured to give a film
showing electrocond. 3.2 + 10-5 and 6.4 + 10-6 S/cm, at 80 and 140°, resp.

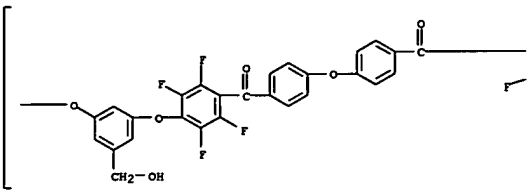
ACCESSION NUMBER: 2004:139363 CAPLUS
DOCUMENT NUMBER: 140:182769
TITLE: Fluorine-containing poly(aryl ethers), curable compositions, cured materials, adhesives, and ionic conductors therefrom, and manufacture of solvent-soluble engineering plastics therefor
INVENTOR(S): Akutagawa, Hironobu; Omote, Kazushi; Matsumoto, Takeshi; Nishiji, Ai; Yoshida, Masaya
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004051978	A2	20040219	JP 2003-155624	20030530
PRIORITY APPLN. INFO.:			JP 2002-160397 A	20020531

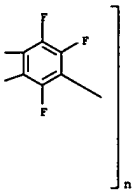
IT **659720-09-9P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorine-containing poly(aryl ethers) showing good heat resistance useful

L52 ANSWER 4 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
for adhesives and ionic conductors)
RN 659720-09-9 CAPLUS
CN Poly[oxy[5-(hydroxymethyl)-1,3-phenylene]oxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

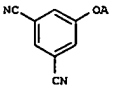
PAGE 1-A



PAGE 1-B



L52 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

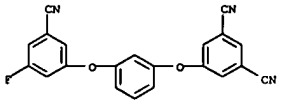
AB Method for the control of weeds which comprises applying thereto a herbicidally effective amount of at least one compound which is a 3,5-dicyanophenoxy derivative of formula (I); wherein A is as defined in the
description; to novel 3,5-dicyanophenoxy derivs., to new herbicidal compns. containing them, and to processes and intermediates for their preparation

ACCESSION NUMBER: 2003:490952 CAPLUS
DOCUMENT NUMBER: 139:64820
TITLE: Preparation of 3,5-dicyanophenoxy derivs. as herbicides
INVENTOR(S): Cornell, Clive; Cramp, Michael Colin; Gingell, Michael; Westaway, Susan
PATENT ASSIGNEE(S): Bayer CropScience Ltd., UK
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

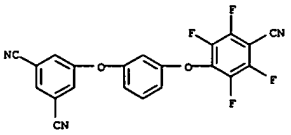
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003051119	A1	20030626	WO 2002-EP13232	20021125
W: AE, AG, AL, AM, AU, AZ, BA, BB, BR, BY, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, RU, SC, SG, SI, TJ, TM, TN, TT, UA, US, UZ, VC, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10161763	A1	20030717	DE 2001-10161763	20011215
PRIORITY APPLN. INFO.:			DE 2001-10161763 A	20011215

OTHER SOURCE(S): MARPAT 139:64820
IT **548465-86-7P 548465-90-3P 548465-93-6P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as herbicide)
RN 548465-86-7 CAPLUS
CN 1,3-Benzenedicarbonitrile, 5-[3-(3-cyano-5-fluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

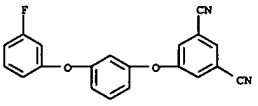
L52 ANSWER 5 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 548465-90-3 CAPLUS
CN 1,3-Benzenedicarbonitrile, 5-[3-(4-cyano-2,3,5,6-tetrafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

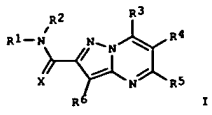


RN 548465-93-6 CAPLUS
CN 1,3-Benzenedicarbonitrile, 5-[3-(3-fluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The title compds. [I; R1 = (un)substituted alkyl, aryl, heteroaryl, etc.; R2 = H, alkyl; or NR1R2 = 4-8 membered heterocycloaryl; R3 = H, alkyl, halo, etc.; R4 = H, halo, (un)substituted alkyl, aryl; R5 = (un)substituted alkyl, aryl, heteroaryl, heterocycloalkyl; R6 = H, halo, (un)substituted aryl, etc.; X = O, S], useful in the treatment of diseases through the inhibition of sodium ion flux through voltage-dependent sodium channels, were prepared Thus, amidation of 5-(3,4-dichlorophenyl)-7-trifluoromethylpyrazol[1,5-a]pyrimidine-2-carboxylic acid with PhCH2NH2 in the presence of BOP in THF containing Et3N afforded 89% I [R1 = CH2Ph; R2 = H; R3 = CF3; R4 = H; R5 = 3,4-Cl2C6H3; R6 = H; X = O]. More particularly, the invention provides pyrazolopyrimidines, compns. and methods that are useful in the treatment of central or peripheral nervous system disorders, particularly pain and chronic pain by blocking sodium channels associated with the onset or recurrence of the indicated conditions. The compds., compns. and methods of the present invention are of particular use for treating neuropathic or inflammatory pain by the inhibition of ion flux through a channel that includes a PN3 subunit. The compds. I were tested in mech. allodynia in vivo assay and in thermal hyperalgesia in vivo assay. Results show that after oral administration the compds. I produce efficacious anti-allodynic effects at doses less then or equal to 100 mg/kg, and that after IV administration the compds. I produce efficacious anti-hyperalgesic effects at doses less than or equal to 30 mg/kg.

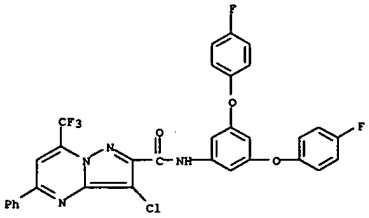
ACCESSION NUMBER: 2003:356452 CAPLUS
DOCUMENT NUMBER: 138:368908
TITLE: Preparation of pyrazolopyrimidines as sodium channel inhibitors
INVENTOR(S): Atkinson, Robert Nelson; Gross, Michael Francis; Van Rhee, Michiel Albert
PATENT ASSIGNEE(S): Icagen, Inc., USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003037900	A2	20030508	WO 2002-US35171	20021101
WO 2003037900	A3	20041118		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

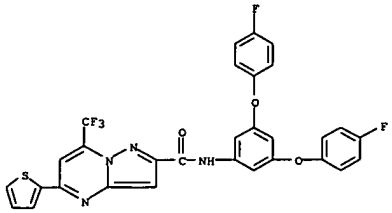
L52 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2003176450 A1 20030918 US 2002-286687 20021101
US 6833371 B2 20041221
PRIORITY APPLN. INFO.: US 2001-335874P P 20011101

OTHER SOURCE(S): MARPAT 138:368908
IT 326892-95-9P 326893-03-2P 328088-45-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrazolopyrimidines as sodium channel inhibitors)
RN 326892-95-9 CAPLUS
CN Pyrazolo[1,5-a]pyrimidine-2-carboxamide, N-[3,5-bis(4-fluorophenoxy)phenyl]-3-chloro-5-phenyl-7-(trifluoromethyl)- (9CI) (CA INDEX NAME)

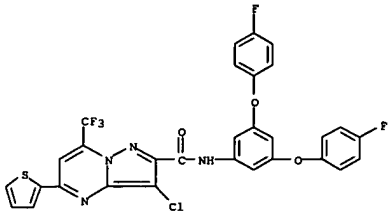


RN 326893-03-2 CAPLUS
CN Pyrazolo[1,5-a]pyrimidine-2-carboxamide, N-[3,5-bis(4-fluorophenoxy)phenyl]-5-(2-thienyl)-7-(trifluoromethyl)- (9CI) (CA INDEX NAME)

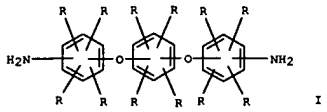
L52 ANSWER 6 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



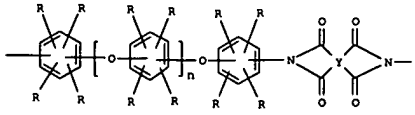
RN 328088-45-5 CAPLUS
CN Pyrazolo[1,5-a]pyrimidine-2-carboxamide, N-[3,5-bis(4-fluorophenoxy)phenyl]-3-chloro-5-(2-thienyl)-7-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L52 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

AB The aromatic diamine compound having a formula I and a polyimide having a repeating unit represented by the following formula II, which has low-temperature adherability, are prepared, where n is an integer of 3-7, R is independently an atom or a group selected from the group consisting of a H, a halogen atom and a hydrocarbon group, the same or different two hetero atoms selected from N and O bonded to each benzene ring are at the ortho- or meta-positions to each other on at least one benzene ring, and when n is 3, the hetero atoms are at the ortho- or meta-positions to each other on all the benzene rings and Y is a tetravalent organic group.

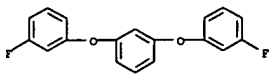
ACCESSION NUMBER: 2003:172961 CAPLUS
DOCUMENT NUMBER: 138:222013
TITLE: Novel aromatic diamine and polyimide
INVENTOR(S): Kodama, Yoichi; Mori, Minehiro; Nagai, Naoshi; Kawaguchi, Masaru
PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1288191	A2	20030305	EP 2002-19705	20020902
EP 1288191	A3	20030702		

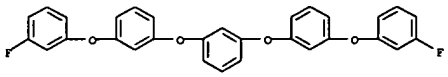
L52 ANSWER 7 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

JP 2003231753	A2	20030819	JP 2002-243952		20020823
JP 2004002265	A2	20040108	JP 2002-247130		20020827
CN 1403438	A	20030319	CN 2002-142274		20020829
US 2003092870	A1	20030515	US 2002-232744		20020903
US 6737503	B2	20040518			
US 2004082754	A1	20040429	US 2003-718532		20031124
PRIORITY APPLN. INFO.:			JP 2001-267218	A	20010904
			JP 2001-332664	A	20011030
			JP 2002-101107	A	20020403
			JP 2001-369100	A	20011203
			JP 2001-369101	A	20011203
			US 2002-232744	A3	20020903

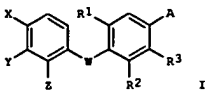
OTHER SOURCE(S): MARPAT 138:222013
IT 500577-27-5P 500577-29-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of novel aromatic diamines and polyimides having low-temperature adherability)
RN 500577-27-5 CAPLUS
CN Benzene, 1,3-bis(3-fluorophenoxy)- (9CI) (CA INDEX NAME)



RN 500577-29-7 CAPLUS
CN Benzene, 1,3-bis[3-(3-fluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



L52 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



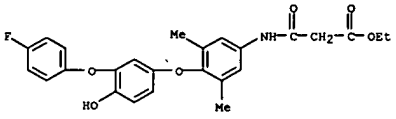
I

AB Preventive or recurrence-suppressive agents for liver cancer containing as the active ingredient thyroid hormone receptor agonists having an effect of inhibiting the expression of liver estrogen sulfotransferase; and usage of the agents. The thyroid hormone receptor agonists are preferably compds. represented by the general formula I (R1 and R2 = alkyl, halogeno, or the like; R3 = hydrogen, alkyl, halogeno, or the like; X = hydroxyl or the like; W = O, S, CH2, or the like; Y = alkyl, -Q-T (wherein Q = O, CH2, CH(OH), or the like; and T = optionally substituted aryl or the like), or the like; Z = hydrogen, alkoxy, or the like; and A = -NHCO-Y1-CO2R8, -CH2CH(R9)NR10R11, or the like) or pharmaceutically acceptable salts thereof.
ACCESSION NUMBER: 2002:905927 CAPLUS
DOCUMENT NUMBER: 138:305
TITLE: Preventive or recurrence-suppressive agents for liver cancer
INVENTOR(S): Ohnota, Hideki; Hayashi, Morimichi; Kuroda, Junji; Komatsu, Yoshimitsu; Nishimura, Toshihiro
PATENT ASSIGNEE(S): Kissei Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

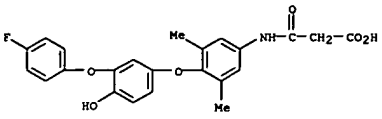
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094319	A1	20021128	WO 2002-JP4601	20020513
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			JP 2001-149775	A 20010518

OTHER SOURCE(S): MARPAT 138:305
IT 373641-22-6P 373641-71-5P
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

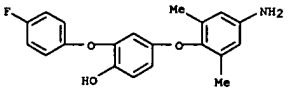
L52 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(preventive or recurrence-suppressive agents for liver cancer contg. thyroid hormone receptor agonists)
RN 373641-22-6 CAPLUS
CN Propanoic acid, 3-[[4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]amino]-3-oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 373641-71-5 CAPLUS
CN Propanoic acid, 3-[[4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]amino]-3-oxo- (9CI) (CA INDEX NAME)

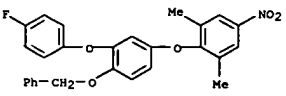


L52 ANSWER 8 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



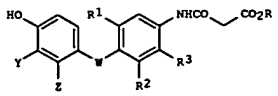
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 373642-43-4P 477274-17-2P, 4-(4-Amino-2,6-dimethylphenoxy)-2-(4-fluorophenoxy)phenol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preventive or recurrence-suppressive agents for liver cancer containing thyroid hormone receptor agonists)
RN 373642-43-4 CAPLUS
CN Benzene, 4-(2,6-dimethyl-4-nitrophenoxy)-2-(4-fluorophenoxy)-1-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 477274-17-2 CAPLUS
CN Phenol, 4-(4-amino-2,6-dimethylphenoxy)-2-(4-fluorophenoxy)- (9CI) (CA INDEX NAME)

L52 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

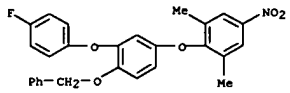
AB Compds. represented by the general formula (I) or pharmacol. acceptable salts thereof [wherein W represents oxygen, sulfur, methylene, CO, SO, or SO2; R represents hydrogen, C1-6 alkyl or aryl-C1-6 alkyl; R1 and R2 represent each C1-3 alkyl, CF3, or halogeno; R3 represents hydrogen, C1-3 alkyl, halogeno, or CF3; Y represents C1-6 alkyl, CF3, 6-oxo-1,6-dihydropyridazin-3-ylmethyl, or -Q-T (wherein Q represents oxygen, methylene, hydroxymethylene, or CO; and T represents optionally substituted aryl or arylmethyl or cycloalkylmethyl optionally containing O in the ring); and Z represents hydrogen or C1-3 alkoxy or Y and Z are linked together to form tetramethylene] are prepared Theses compds. I have excellent effects of lowering neutral fat level and non-HDL cholesterol level in the blood, inhibiting or suppressing the accumulation of neutral fat in the liver and protecting or ameliorating the liver function and, therefore, are useful as preventives or remedies for circulatory diseases such as hyperlipemia, arteriosclerosis, fatty liver, and hepatitis. Thus, 4-[3-(4-fluorobenzoyl)-4-hydroxyphenoxy]-3,5-dimethylmalonanilic acid Et ester was reduced by NaBH4 in THF at room temperature for 13 h to give 4-[3-[(4-fluorophenyl)hydroxymethyl]-4-hydroxyphenoxy]-3,5-dimethylmalonanilic acid Et ester which was converted into 4-[3-[(4-fluorophenyl)hydroxymethyl]-4-hydroxyphenoxy]-3,5-dimethylmalonanilic acid potassium salt (II). II at 30 nmol/kg twice a day for 2 wk lowered the triglyceride level in liver of male KK-Ay mice from 16.1 (control) to 2.8 mg/l g liver.

ACCESSION NUMBER: 2001:833261 CAPLUS
DOCUMENT NUMBER: 135:371762
TITLE: Preparation of malonanilic acid derivatives as preventives or remedies for circulatory disease
INVENTOR(S): Shiohara, Hiroaki; Nakamura, Tetsuya; Kikuchi, Norihiko; Ohnota, Hideki; Koizumi, Takashi; Kitazawa, Makio
PATENT ASSIGNEE(S): Kissei Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085670	A1	20011115	WO 2001-JP3499	20010424

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,

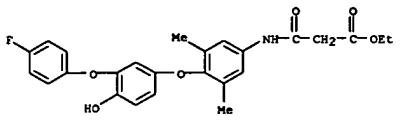
L52 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



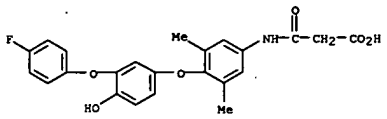
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 9 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: JP 2000-140743 A 20000512

OTHER SOURCE(S): MARPAT 135:371762
IT 373641-22-6P 373641-71-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of malonanilic acid derivs. lowering neutral fat level and non-HDL cholesterol level in blood as preventives or remedies for circulatory diseases)
RN 373641-22-6 CAPLUS
CN Propanoic acid, 3-[[4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]amino]-3-oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 373641-71-5 CAPLUS
CN Propanoic acid, 3-[[4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]amino]-3-oxo- (9CI) (CA INDEX NAME)



IT 373642-43-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of malonanilic acid derivs. lowering neutral fat level and non-HDL cholesterol level in blood as preventives or remedies for circulatory diseases)
RN 373642-43-4 CAPLUS
CN Benzene, 4-(2,6-dimethyl-4-nitrophenoxy)-2-(4-fluorophenoxy)-1-(phenylmethoxy)- (9CI) (CA INDEX NAME)

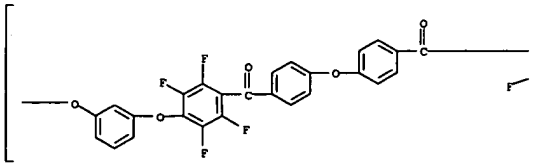
L52 ANSWER 10 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB The compds. QCO-p-C6H4O-p-C6H4R (Q = 2,3,4,5,6-pentafluorophenyl; R = OH, COQ) are manufactured Thus, 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone (prepared from 2,3,4,5,6-pentafluoro-4'-methoxybenzophenone) was polymerized in dimethylacetamide at 160° to give a polymer showing good solubility in dimethylacetamide and m-cresol, 10% weight loss (in air) temperature 421°.

ACCESSION NUMBER: 2001:176773 CAPLUS
DOCUMENT NUMBER: 134:208664
TITLE: (2,3,4,5,6-pentafluorobenzoyl)diphenyl ethers and fluorine-containing aryl ether ketone polymers having high solubility and heat stability
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Casiday, Rachel E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001064226	A2	20010313	JP 1999-183950	19990629
PRIORITY APPLN. INFO.:			US 1998-106270 A	19980629
			JP 1999-180091 A	19990625

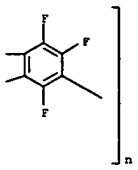
IT 213693-17-5P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
((pentafluorobenzoyl)phenyl ether as monomers for F-containing aryl ether ketone polymers having high solubility and heat stability)
RN 213693-17-5 CAPLUS
CN Poly[oxy-1,3-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L52 ANSWER 10 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L52 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

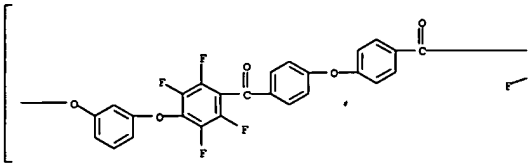
AB The compns., useful for elec. insulating materials, contain (p-C6F4COC6H4-qXqOR1m)n [R1 = C6H4-rX'r(CO-p-C6F4OR2)pO; R2 = divalent aryl; X, X' = halo, lower alkyl, alkoxy; q, r = 0-4; m,p = 0, 1]. Thus, 2,2-bis(4-hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane was polymerized with 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl)diphenyl ether to give a polymer showing dielec. constant 3.06 at 25°, 10% weight loss temperature 524° under N, and Tg 174°.

ACCESSION NUMBER: 2001:124290 CAPLUS
DOCUMENT NUMBER: 134:179345
TITLE: Low dielectric fluorinated aromatic polyether ketone compositions with good heat resistance
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001049110	A2	20010220	JP 1999-226981	19990810
JP 3539897	B2	20040707		
PRIORITY APPLN. INFO.:			JP 1999-226981	19990810

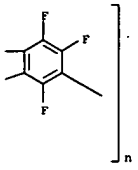
IT 213693-17-5P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low dielec. fluorinated aromatic polyether ketone compns. with good heat resistance)
RN 213693-17-5 CAPLUS
CN Poly[oxy-1,3-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L52 ANSWER 11 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L52 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

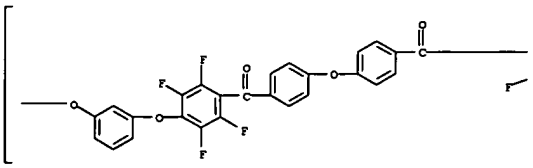
AB Ketonic di-Ph ethers of p-R1COC6H4OC6H4R2-p type compds. (R1 = 2,3,4,5,6-pentafluorobenzoyl; R2 = OH, pentafluorobenzoyl group) and polyether-polyketone polymers containing tetrafluorophenylene and phenylene groups are provided which have good mech. strength, toughness, elec. property, thermal oxidative stability and solubility Thus, heating 0.5 g 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone with 0.36 ground K carbonate, 2 mL N-methyl-2-pyrrolidone and 1 mL PhMe at 160° while stirring for 3 h gave a polymer at 85% yield and having viscosity 0.5 g/dL in AcNMe2.

ACCESSION NUMBER: 2001:25791 CAPLUS
DOCUMENT NUMBER: 134:86663
TITLE: (2,3,4,5,6-Pentafluorobenzoyl)diphenyl ether compound, and fluorine-containing aryl ether ketone polymer
INVENTOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 106,270, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6172181 B1		20010109	US 1999-354976	19990716
PRIORITY APPLN. INFO.:			US 1998-106270	19980629
OTHER SOURCE(S):	MARPAT 134:86663			

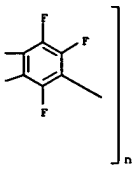
IT 213693-17-5P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(manufacture of (2,3,4,5,6-pentafluorobenzoyl)diphenyl ether compound and fluorine-containing aryl ether ketone polymer)
RN 213693-17-5 CAPLUS
CN Poly[oxy-1,3-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L52 ANSWER 12 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



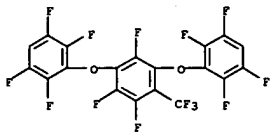
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L52 ANSWER 13 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB The reaction of 4-(4-CF3C6F4O)C6F4Li (RFLi) with halogens, dicyanogen, cyanogen halides, and XeF2 was examined The halogenated aroms. RFCl, RFBr, and RFI were formed upon reaction with Cl2, Br2, and I2, resp. Essentially the same products were isolated in the reaction of RFLi with cyanogen halides. The nitrile RFCN was obtained from the reaction of RFLi with dicyanogen only as a minor product. The reaction of RFLi with XeF2 resulted in the isolation of RFCHMeEt. All products were identified and characterized by anal. and spectroscopic methods. In addition, the mol. structures of RFCl, RFBr, and RFI were determined by x-ray crystallog. Reaction enthalpies for the gas-phase reactions of C6F5Li, as a model for RFLi, with XCN (X = F, Cl, Br, I) were calculated

ACCESSION NUMBER: 2000:745014 CAPLUS
DOCUMENT NUMBER: 134:41943
TITLE: The reactivity of CF3C6F4OC6F4Li towards halogens and cyanogen halides
AUTHOR(S): Klapotke, Thomas M.; Krumm, Burkhard; Polborn, Kurt
CORPORATE SOURCE: Department Chemie der Univ., Munchen, Germany
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (2000), 626(10), 2047-2052
CODEN: ZAACAB; ISSN: 0044-2313
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 134:41943
IT **312583-57-6P**
RL: BYP (Byproduct); PREP (Preparation)
(reaction of [(fluoromethyl)fluorophenoxy]fluorophenyllithium with halogens and cyanogen halides)
RN 312583-57-6 CAPLUS
CN Benzene, 1,2,4-trifluoro-3,5-bis(2,3,5,6-tetrafluorophenoxy)-6-(trifluoromethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

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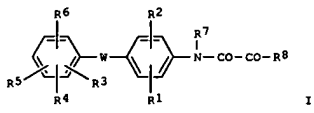
L52 ANSWER 14 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

GI



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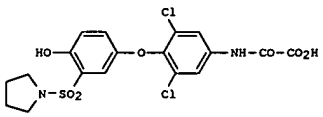


II

AB The title compds. (I) [wherein R1-R3 = independently H, halo, alkyl, CF3, CN, OCF3, or alkoxy; R4 = H or (un)substituted alkyl; or R3 and R4 together form an (un)substituted carbocyclic ring, (CH2)b, or a heterocyclic ring, Q(CH2)c or (CH2)jQ(CH2)k; b = 3-7; c = 2-6; j and k = independently 2-6; Q = O, S, or NR1; R5 = F, OH, alkoxy, or carboxy; or R4 and R5 together form a heterocyclic ring; R6 = H, halo, alkyl, or CF3; R7 = H or alkyl; R8 = OH, alkoxy, or (un)substituted amino; W = O, S(O)d, CH2, NH, or N(alkyl); d = 0-2], prodrugs, geometric and optical isomers, and pharmaceutically acceptable salts were prepared as thyroid receptor ligands. Thus, 2',6'-dichloro-4-methoxy-4'-nitrodiphenyl ether was treated with ClSO2H and pyrrolidine in two steps to give 1-[5-(2,6-dichloro-4-nitrophenoxy)-2-methoxybenzenesufonyl]pyrrolidine. Demethylation using BCl3, followed by reduction using Pd/C, addition of di-Et oxalate, and deesterification, yielded II. An in vivo oxygen consumption assay designed to evaluate the efficacy and cardiac effects of tissue-selective thyroid hormone agonists and a thyroid hormone receptor (TRα and TRβ) binding assay for thyromimetic compds. are described (no data). I are useful for the treatment of obesity, hyperlipidemia, glaucoma, cardiac arrhythmia, skin disorders, thyroid disease, hypothyroidism, and related disorders and diseases, such as diabetes mellitus, atherosclerosis, hypertension, coronary heart disease, hypercholesteremia, depression, and osteoporosis. An anorectic agent or lipase inhibitor may be administered with I to treat these conditions.

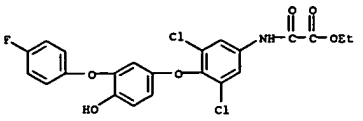
ACCESSION NUMBER: 2000:628106 CAPLUS
DOCUMENT NUMBER: 133:207681
TITLE: Preparation of 4-(sulfamoylphenoxy)phenyloxamic acids and derivatives as thyroid receptor ligands
INVENTOR(S): Chiang, Yuan-Ching Phoebe; Dow, Robert Lee
PATENT ASSIGNEE(S): Pfizer Products Inc., USA
SOURCE: PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

L52 ANSWER 14 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

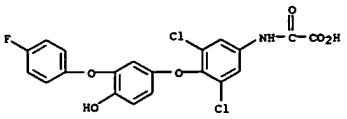
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000051971	A1	20000908	WO 2000-IB183	20000221
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2363145	AA	20000908	CA 2000-2363145	20000221
EP 1157001	A1	20011128	EP 2000-902835	20000221
EP 1157001	B1	20040804		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000008701	A	20011226	BR 2000-8701	20000221
TR 200102561	T2	20020221	TR 2001-200102561	20000221
JP 2002538133	T2	20021112	JP 2000-602199	20000221
EE 200100464	A	20021216	EE 2001-464	20000221
NZ 513449	A	20040227	NZ 2000-513449	20000221
AU 772282	B2	20040422	AU 2000-24575	20000221
AT 272609	E	20040815	AT 2000-902835	20000221
US 6326398	B1	20011204	US 2000-514862	20000228
ZA 2001006730	A	20020805	ZA 2001-6730	20010815
HR 2001000633	A1	20021031	HR 2001-633	20010830
NO 2001004217	A	20011011	NO 2001-4217	20010831
BG 105954	A	20020628	BG 2001-105954	20010926
US 2002049226	A1	20020425	US 2001-966467	20010927
US 6545018	B2	20030408		
US 2003114521	A1	20030619	US 2002-324948	20021220
PRIORITY APPLN. INFO.:			US 1999-122292P	P 19990301
			WO 2000-IB183	W 20000221
			US 2000-514862	A3 20000228

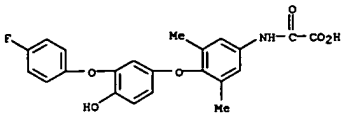
OTHER SOURCE(S): MARPAT 133:207681
IT **290352-19-1P**, N-[3,5-Dichloro-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]phenyl]oxamic acid ethyl ester **290352-20-4P**, N-[3,5-Dichloro-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]phenyl]oxamic acid **290352-21-5P**, N-[4-[3-(4-Fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]oxamic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 4-(sulfamoylphenoxy)phenyloxamic acids and derivs. as thyroid receptor ligands by treatment of 4-methoxy-4'-nitrodiphenyl ethers with ClSO3H and amines, reduction, and amidation with oxalates)
RN 290352-19-1 CAPLUS
CN Acetic acid, [[3,5-dichloro-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]phenyl]amino]oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 290352-20-4 CAPLUS
CN Acetic acid, [[3,5-dichloro-4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]phenyl]amino]oxo- (9CI) (CA INDEX NAME)



RN 290352-21-5 CAPLUS
CN Acetic acid, [[4-[3-(4-fluorophenoxy)-4-hydroxyphenoxy]-3,5-dimethylphenyl]amino]oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

GI

AB Methods, compns., and compds. for modulating the activity of an endothelin
peptide are provided. The methods use compns. that contain carboxylic acid compds. I (X and Y are selected from groups that include O, S, and NH; and Ar1, Ar2 and Ar3 are independently selected from substituted or unsubstituted groups that include 5 to 6 membered aryl groups and heteroaryl groups that contain one or two heteroatom(s)). Twenty-seven compds. were prepared and claimed. For example, 2-[3,4-(methylenedioxy)phenoxy]-6-(4-methylphenoxy)benzoic acid was prepared in 33
% yield by the reaction of Na 4-methylphenoxide with Et 2-fluoro-6-[3,4-(methylenedioxy)phenoxy]benzoate followed by deesterification or 4,6-diphenoxy-2-(methylthio)pyrimidine-5-carboxylic acid was prepared in 71 % yield by the reaction of 4,6-diphenoxy-2-(methylthio)pyrimidine with BuLi and dry ice. The activity of endothelin receptors are modulated by contacting with one or more of the compds. or with compns. containing one or more of the compds. prior to, simultaneously
with, or subsequent to contacting the receptors with an endothelin peptide.

ACCESSION NUMBER: 1999:704991 CAPLUS
DOCUMENT NUMBER: 131:322420
TITLE: Substituted phenyl compounds and derivatives thereof that modulate the activity of endothelin
INVENTOR(S): Chan, Ming Fai; Balaji, Vitukudi Narayanaiyengar; Castillo, Rosario Silvestre; Kois, Adam; Raju, Bore Gowda; Wu, Chengde
PATENT ASSIGNEE(S): Texas Biotechnology Corporation, USA
SOURCE: U.S., 45 pp., Cont.-in-part of U.S. Ser. No. 583,871, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

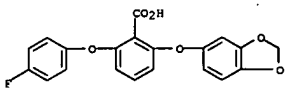
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5977117	A	19991102	US 1996-590139	19960123
WO 9725321	A2	19970717	WO 1997-US366	19970103
WO 9725321	A3	19970912		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9715324	A1	19970801	AU 1997-15324	19970103
EP 876364	A2	19981111	EP 1997-901420	19970103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI

US 6265428	B1	20010724	US 1999-327661	19990608
US 2001014694	A1	20010816	US 2001-808771	20010314

PRIORITY APPLN. INFO.: US 1996-583871 B2 19960105
US 1996-590139 A 19960123
WO 1997-US366 W 19970103
US 1999-327661 A1 19990608

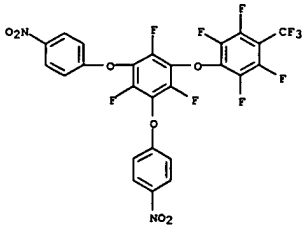
OTHER SOURCE(S): MARPAT 131:322420
IT 193757-00-5P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of phenoxybenzoic acids and phenoxypyrimidinecarboxylic acids
for modulation of activity of endothelin)
RN 193757-00-5 CAPLUS
CN Benzoic acid, 2-(1,3-benzodioxol-5-yloxy)-6-(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

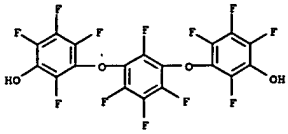
AB Perfluoro(4-phenoxy-2,5-cyclohexadienone) reacts with sodium 4-nitro- and 4-methoxycarbonylphenoxides in glyme at 65°C to give the corresponding 2,4,6-trifluoro-3,5-bis(aryloxy)-4-[2,4,6-trifluoro-3,5-bis(aryloxy)phenoxy]-2,5-cyclohexadienones. Reduction of the latter to phenols, followed by reaction with perfluorotoluene, results in formation of branched polyfluorinated polyphenyl ethers containing NO2 and CO2CH3 functional groups. Reduction of the dinitro polyphenyl ether yields the corresponding diamino derivative. A similar reaction sequence gives rise to a
linear polyphenyl ether, starting from 6-chloro-2,3,4,5,6-pentafluoro-2,4-cyclohexadien-1-one and tetrafluororesorcinol.

ACCESSION NUMBER: 1999:513659 CAPLUS
DOCUMENT NUMBER: 131:257279
TITLE: Synthesis of fluorinated polyphenyl ethers by reaction
of polyfluorinated cyclohexadienones with substituted phenols
AUTHOR(S): Kovtonyuk, V. N.; Kobrina, L. S.
CORPORATE SOURCE: Novosibirsk Institute of Organic Chemistry, Siberian Division, Russian Academy of Sciences, Novosibirsk, 630090, Russia
SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (1999), 35(1), 74-79
CODEN: RJOCEQ; ISSN: 1070-4280
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 245126-31-2P 245126-34-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of fluorinated polyphenyl ethers by reaction of polyfluorinated
cyclohexadienones with phenols)
RN 245126-31-2 CAPLUS
CN Benzene, 1,3,5-trifluoro-2,4-bis(4-nitrophenoxy)-6-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)

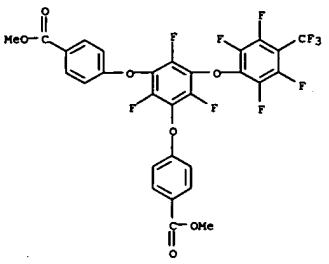


RN 245126-34-5 CAPLUS

L52 ANSWER 16 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Phenol, 3,3'-[(2,4,5,6-tetrafluoro-1,3-phenylene)bis(oxy)]bis[2,4,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

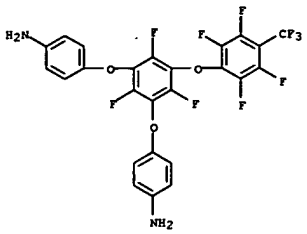


IT **245126-32-3P 245126-33-4P 245126-36-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of fluorinated polyphenyl ethers by reaction of polyfluorinated
cyclohexadienones with phenols)
RN 245126-32-3 CAPLUS
CN Benzoic acid, 4,4'-[(2,4,6-trifluoro-5-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]-1,3-phenylene]bis(oxy)]bis-, dimethyl ester (9CI) (CA INDEX NAME)

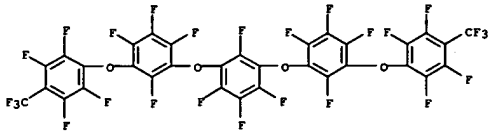


RN 245126-33-4 CAPLUS
CN Benzenamine, 4,4'-[(2,4,6-trifluoro-5-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]-1,3-phenylene]bis(oxy)]bis- (9CI) (CA INDEX NAME)

L52 ANSWER 16 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

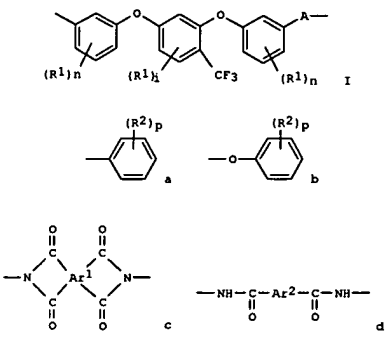


RN 245126-36-7 CAPLUS
CN Benzene, 1,2,3,5-tetrafluoro-4,6-bis[2,4,5,6-tetrafluoro-3-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Title aromatic polyamide with good heat-resistance, low dielec. constant, colorlessness and transparence, processability and thermal stability is composed of 1 or ≥2 repeating units selected from the group described by a structural formula of (I), where R1 is F, C1-3 alkyl or fluorinated alkyl, C1-3 alkoxy, Ph, phenoxy, benzyl, naphthyl or monovalent group having formula of (a) or (b) (R2: halogen, C1-3 alkyl, alkoxy, halogenated alkyl or halogenated alkoxy, p = 1-5), n is an integer
of 1-4, i is an integer of 0-3, A is a group described by the formula of (c) or (d) (Ar1 and Ar2: substituted aryl groups), while A is described by
b, R1 is not F or fluorinated alkyl group. The polyamide is prepared by polycondensation of fluorinated alkyl-substituted bis(aminophenoxy)benzene
with aromatic dicarboxylic acid derivative Thus, 1,3-bis(3-aminophenoxy)-4-
trifluoromethylbenzene 18.02 g was polymerized with terephthaloyl chloride
10.15 g to give a polyamide with yield of 97.1, logarithmic viscosity of 1.11 dL/g, glass transition temperature of 213°, and 5% weight reducing temperature of 508°.

ACCESSION NUMBER: 1999:253765 CAPLUS
DOCUMENT NUMBER: 130:338828
TITLE: Preparation of fluorine-containing aromatic polyamide resin for organic optical components
INVENTOR(S): Yamashita, Wataru; Yoshimura, Tomoyoshi; Shibuya, Atsushi; Sakata, Yoshihiro; Oikawa, Hideaki; Takuma, Keisuke; Ohta, Masahiro

L52 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

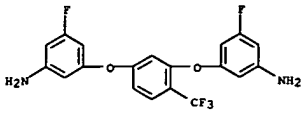
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11106503	A2	19990420	JP 1997-226052	19970822
JP 11071316	A2	19990316	JP 1997-196009	19970722
US 6103860	A	20000815	US 1999-332534	19990614
PRIORITY APPLN. INFO.:			JP 1996-228551 A	19960829
			JP 1997-159422 A	19970617
			JP 1997-159424 A	19970617
			JP 1997-212855 A	19970807
			JP 1996-201825 A	19960731
			JP 1996-204614 A	19960802
			JP 1996-204615 A	19960802
			JP 1996-331831 A	19961212
			JP 1996-331832 A	19961212
			JP 1996-331833 A	19961212
			JP 1997-138355 A	19970528
			JP 1997-138356 A	19970528
			JP 1997-138357 A	19970528
			JP 1997-138358 A	19970528
			JP 1997-138359 A	19970528
			JP 1997-159421 A	19970617
			JP 1997-159423 A	19970617
			US 1997-917387 A3	19970826

IT **203808-02-0P 203808-05-3P 223791-44-4P 223791-45-5P 223791-46-6P**
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(preparation and properties of fluorine-containing aromatic polyamide resin for
organic optical components)
RN 203808-02-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with
3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine]

(9CI) (CA INDEX NAME)

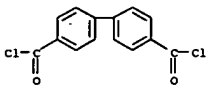
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



CM 2

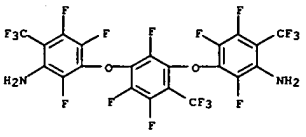
CRN 2351-37-3
CMF C14 H8 Cl2 O2



RN 203808-05-3 CAPLUS
CN Benzoyl chloride,
4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-
, polymer with 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-
phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine]
(9CI) (CA INDEX NAME)

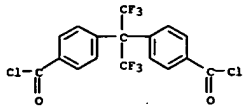
CM 1

CRN 203807-99-2
CMF C21 H4 F18 N2 O2



CM 2

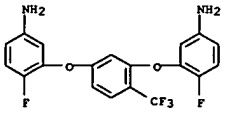
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 223791-44-4 CAPLUS
CN Benzoyl chloride,
4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-
, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[4-
fluorobenzenamine] and 3,3'-[[4-(trifluoromethyl)-1,3-
phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

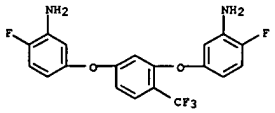
CM 1

CRN 203807-97-0
CMF C19 H13 F5 N2 O2



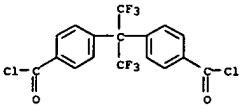
CM 2

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



CM 3

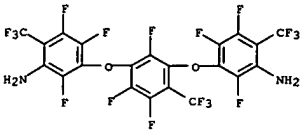
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 223791-45-5 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with
1,4-benzenedicarbonyl dichloride and 3,3'-[[2,4,5-trifluoro-6-
(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-
(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

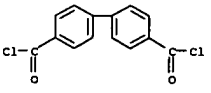
CM 1

CRN 203807-99-2
CMF C21 H4 F18 N2 O2



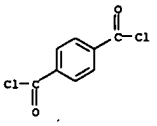
CM 2

CRN 2351-37-3
CMF C14 H8 Cl2 O2



CM 3

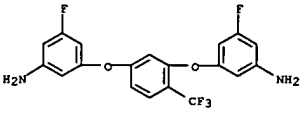
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 223791-46-6 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 4-(trifluoromethyl)-, polymer with
1,3-benzenedicarbonyl dichloride, 3,3'-[[4-(trifluoromethyl)-1,3-
phenylene]bis(oxy)]bis[5-fluorobenzenamine] and
3,3'-[[4-(trifluoromethyl)-
1,3-phenylene]bis(oxy)]bis[5-(trifluoromethyl)benzenamine] (9CI) (CA
INDEX NAME)

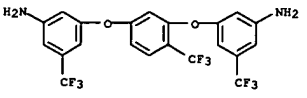
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



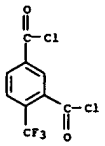
CM 2

CRN 161824-61-9
CMF C21 H13 F9 N2 O2



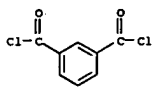
CM 3

CRN 1483-49-4
CMF C9 H3 Cl2 F3 O2



CM 4

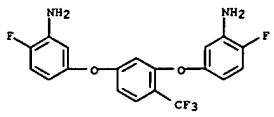
CRN 99-63-8
CMF C8 H4 Cl2 O2



IT **223791-39-7P 223791-40-0P 223791-41-1P**
223791-42-2P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation and properties of fluorine-containing aromatic polyamide resin for
organic optical components)
RN 223791-39-7 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with 1,4-benzenedicarbonyl dichloride and 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

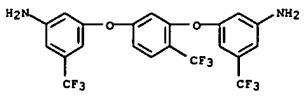
CM 1

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



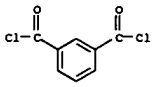
CM 2

CRN 2351-37-3



CM 3

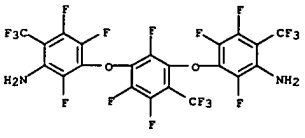
CRN 99-63-8
CMF C8 H4 Cl2 O2



RN 223791-41-1 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 4-(trifluoromethyl)-, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[4-fluorobenzenamine] and 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

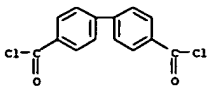
CM 1

CRN 203807-99-2
CMF C21 H4 F10 N2 O2



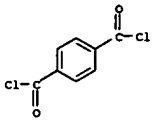
CM 2

CRN 203807-97-0
CMF C19 H13 F5 N2 O2



CM 3

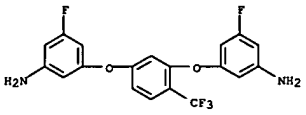
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 223791-40-0 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] and 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

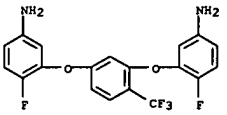
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



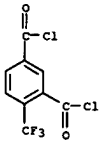
CM 2

CRN 161824-61-9
CMF C21 H13 F9 N2 O2



CM 3

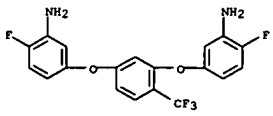
CRN 1483-49-4
CMF C9 H3 Cl2 F3 O2



RN 223791-42-2 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine], 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzoyl chloride] (9CI) (CA INDEX NAME)

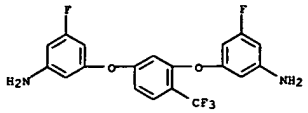
CM 1

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



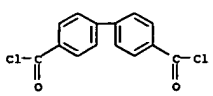
CM 2

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



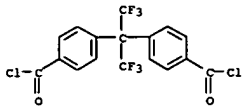
CM 3

CRN 2351-37-3
CMF C14 H8 Cl2 O2



CM 4

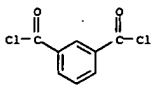
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



IT 203807-92-5P 203807-93-6P 203807-95-8P
203807-96-9P 203807-98-1P 203808-00-8P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of fluorine-containing aromatic polyamide resin for organic optical
components)
RN 203807-92-5 CAPLUS
CN Benzoyl chloride,
4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-
, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

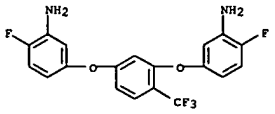
CRN 203807-91-4
CMF C19 H13 F5 N2 O2



RN 203807-95-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with
3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

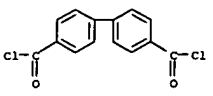
CM 1

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



CM 2

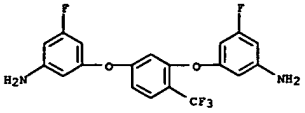
CRN 2351-37-3
CMF C14 H8 Cl2 O2



RN 203807-96-9 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with
3,3'-[[4-(trifluoromethyl)-
1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

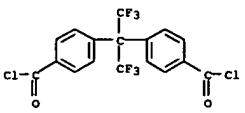
CM 1

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



CM 2

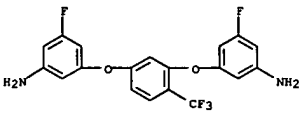
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 203807-93-6 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with
3,3'-[[4-(trifluoromethyl)-
1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] (9CI) (CA INDEX NAME)

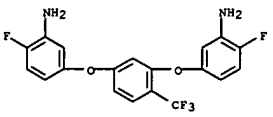
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



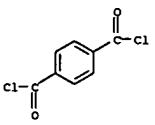
CM 2

CRN 99-63-8
CMF C8 H4 Cl2 O2



CM 2

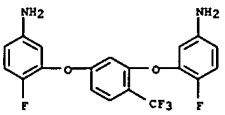
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 203807-98-1 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with
3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[4-fluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

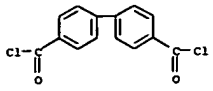
CRN 203807-97-0
CMF C19 H13 F5 N2 O2



CM 2

CRN 2351-37-3
CMF C14 H8 Cl2 O2

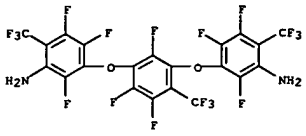
L52 ANSWER 17 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 203808-00-8 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 4-(trifluoromethyl)-, polymer with 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

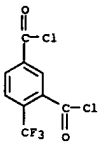
CM 1

CRN 203807-99-2
CMF C21 H4 F18 N2 O2

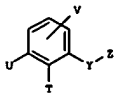


CM 2

CRN 1483-49-4
CMF C9 H3 Cl2 F3 O2



L52 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

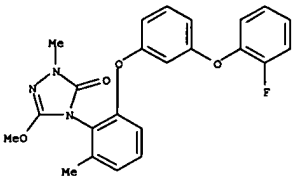
AB The triazole derivs, I [T = (un)substituted triazolone, etc.; U = halo or (halo)alkyl; V = H, halo, alkyl, CN, NO2 or alkoxy; YZ = group of ≥5 atoms (C, N, O S Si and/or Ge), provided that ≥2 atoms are C], their N-oxides and/or salts, are prepared and enriched in the more active isomer with respect to the relative positions of U, T and YZ. The enantiomerically-enriched compds. control fungi and arthropods.

ACCESSION NUMBER: 1999:184085 CAPLUS
DOCUMENT NUMBER: 130:219484
TITLE: Preparation of enantiomerically-enriched triazolone derivatives as fungicides and arthropodicides
INVENTOR(S): Brown, Richard James; Casalnuovo, Albert Loren; Chan, Dominic Ming-Tak
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 213 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9911129	A1	19990311	WO 1998-US17747	19980827
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9892065	A1	19990322	AU 1998-92065	19980827
PRIORITY APPLN. INFO.:			US 1997-57917P	P 19970904
			WO 1998-US17747	W 19980827

OTHER SOURCE(S): MARPAT 130:219484
IT **221117-66-4P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as as fungicide and arthropodicide)
RN 221117-66-4 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2-fluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl-, stereoisomer (9CI) (CA INDEX NAME)

L52 ANSWER 18 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

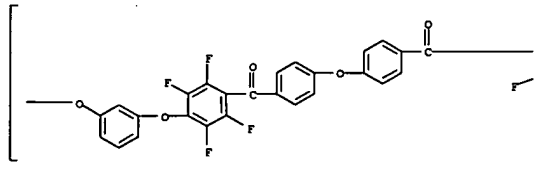


REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L52 ANSWER 19 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB Fluoropolymer-polyether-polyketones were obtained by homopolycondensation of 4-hydroxy-4'-(pentafluorobenzoyl)diphenyl ether and by copolycondensation of 4,4'-bis(pentafluorobenzoyl)diphenyl ether with benzenediols or bisphenols. The polymers have very good heat resistance, with 10% weight loss temps. ≥500°.

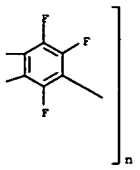
ACCESSION NUMBER: 1998:532324 CAPLUS
DOCUMENT NUMBER: 129:260978
TITLE: New polymers derived from 2,3,4,5,6-pentafluorobenzoic acid
AUTHOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu; Sakaguchi, Yoshimitu
CORPORATE SOURCE: Faculty of Environmental Science and Technology, Okayama University, Okayama, 700-8530, Japan
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 790-791
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **213693-17-5P**, 1,3-Benzenediol-4,4'-bis(pentafluorobenzoyl)diphenyl ether copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thermally stable fluoropolymer-polyether-polyketones)
RN 213693-17-5 CAPLUS
CN Poly[oxy-1,3-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L52 ANSWER 19 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

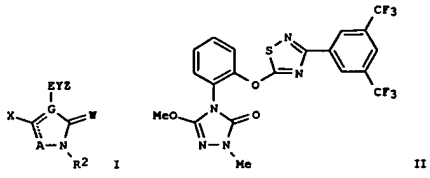


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L52 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

GI



I II

AB Title compds. I and their N-oxides and agriculturally suitable salts are disclosed [wherein E = (un)substituted 1,2-phenylene, naphthalene or heterocyclyl; A = O, S, N, NR3 or CR4; G = C or N; when G is C, then A is O, S or NR3 and the floating double bond is attached to G; and when G is N, than A is N or CR4 and the floating double bond is attached to A; W = O, S, NH, N(C1-C6 alkyl) or NO(C1-C6 alkyl); X = H, OR1, SOmR1, halo, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl, cyano, NH2, NHR1, N(C1-C6 alkyl)R1, NH(C1-C6 alkoxy) or N(C1-C6 alkoxy)R1; R2 = H, C1-C6 alkyl, C1-C6 haloalkyl, C2-C6 haloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C3-C6 cycloalkyl, C2-C4 alkylcarbonyl, C2-C6 alkoxycarbonyl, hydroxy, C1-C2 alkoxy, or acetyloxy; R1= (halo)alkyl, (halo)alkenyl, etc.; R3= H, (halo)alkyl, etc.; Y = O, CO, SO, etc.; Z = (un)substituted alkyl, alkenyl or alkynyl, R4 = H, halo, alkyl, etc.; m = 0, 1 or 2]. Claims cover methods of arthropod and fungal control, novel compds., arthropodicidal and fungicidal compns., and novel intermediates. Approx. 1000 invention compds. were prepared For instance, 5-chloro-2,4-dihydro-4-(2-methoxyphenyl)-2-methyl-3H-1,2,4-triazol-3-one (preparation given) underwent a sequence of cleavage of the Me ether with BBr3, methoxylation of the chloride with NaOMe, and etherification of the phenolic hydroxy group with 5-chloro-3-[3,5-bis(trifluoromethyl)phenyl]-1,2,4-thiadiazole, to give title compound II. Selected I were active in screens against Erysiphe graminis, Pyricularia oryzae, Spodoptera frugiperda, Tetranychus urticae, and a variety of other standard pests.

ACCESSION NUMBER: 1998:385479 CAPLUS
DOCUMENT NUMBER: 129:54375
TITLE: Arthropodicidal and fungicidal cyclic amides [triazolones] and their preparation, use, and compositions
INVENTOR(S): Brown, Richard James; Chan, Dominic Ming-Tak; Howard, Michael Henry, Jr.; Daniel, Dilon Jancey; Clark, David Alan; Selby, Thomas Paul
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 232 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

L52 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9823155	A1	19980604	WO 1996-US18916	19961126
W: JP, KR				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ZA 9709943	A	19990505	ZA 1997-9943	19971105
WO 9823156	A1	19980604	WO 1997-US21944	19971125
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9854633	A1	19980622	AU 1998-54633	19971125
EP 944314	A1	19990929	EP 1997-948597	19971125
R: CH, DE, DK, ES, FR, GB, IT, LI, NL, IE				
BR 9713415	A	20000418	BR 1997-13415	19971125
JP 2001506984	T2	20010529	JP 1998-524889	19971125
MX 9904789	A	20000131	MX 1999-4789	19990524
KR 2000057254	A	20000915	KR 1999-704639	19990526

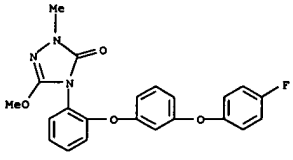
PRIORITY APPLN. INFO.:

WO 1996-US18916	A	19961126
US 1996-33614P	P	19961219
US 1997-48844P	P	19970606
WO 1997-US21944	W	19971125

OTHER SOURCE(S): MARPAT 129:54375

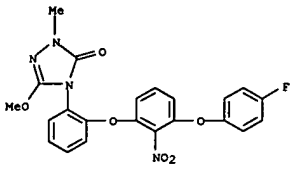
IT **186979-62-4P 186979-63-5P 186979-65-7P**
186980-15-4P 186980-17-6P 186980-20-1P
186980-51-8P 186980-52-9P 186980-53-0P
186981-79-3P 186981-82-8P 186981-83-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as arthropodicide and fungicide)

RN 186979-62-4 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

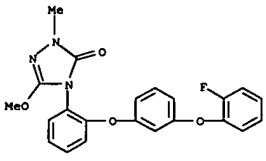


L52 ANSWER 20 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

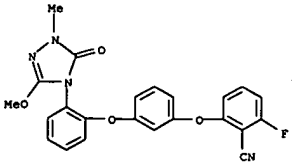
RN 186979-63-5 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)-2-nitrophenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



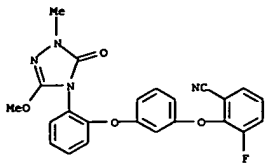
RN 186979-65-7 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



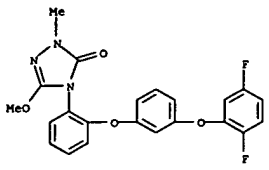
RN 186980-15-4 CAPLUS
CN Benzonitrile, 2-[3-[2-(1,5-dihydro-3-methoxy-1-methyl-5-oxo-4H-1,2,4-triazol-4-yl)phenoxy]phenoxy]-6-fluoro- (9CI) (CA INDEX NAME)



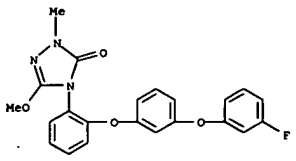
RN 186980-17-6 CAPLUS
CN Benzonitrile, 2-[3-[2-(1,5-dihydro-3-methoxy-1-methyl-5-oxo-4H-1,2,4-triazol-4-yl)phenoxy]phenoxy]-3-fluoro- (9CI) (CA INDEX NAME)



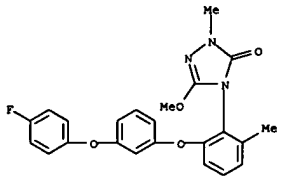
RN 186980-20-1 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,5-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



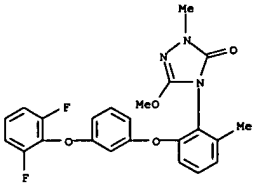
RN 186980-51-8 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(3-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



RN 186980-52-9 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,3-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

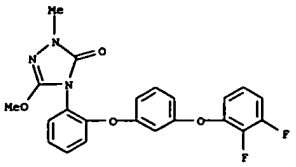


RN 186981-83-9 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,6-difluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

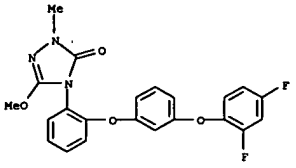


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

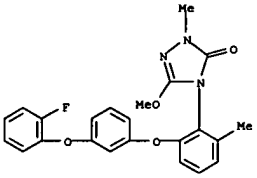
FORMAT



RN 186980-53-0 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,4-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



RN 186981-79-3 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2-fluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



RN 186981-82-8 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

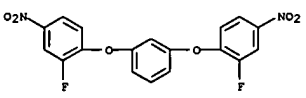
L52 ANSWER 21 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB A series of bis(ether amines), primarily 1,2-bis(4-aminophenoxy)benzenes but including 1,3- and 1,4-bis(4-aminophenoxy)benzenes, with fluoro and alkyl substituents were synthesized. These diamines were prepared by F displacement with 4-FC6H4NO2 or its derivs., or NO2 displacement with 1,4-C6H4(NO2)2, and various phenylenediols and their alkyl or fluoro derivs. The resulting bis(ether nitro) compds. were reduced to the corresponding bis(ether amines).

ACCESSION NUMBER: 1998:376601 CAPLUS
DOCUMENT NUMBER: 129:135942
TITLE: Methyl- and fluoro-substituted bis(4-aminophenoxy)benzenes. A convenient method of synthesis
AUTHOR(S): Eastmond, G. C.; Paprotny, J.
CORPORATE SOURCE: Donnan Laboratories, University Liverpool, Liverpool, L69 7ZD, UK
SOURCE: Synthesis (1998), (6), 894-898
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:135942

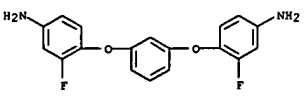
IT **210492-61-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy]benzenamines)

RN 210492-61-8 CAPLUS
CN Benzene, 1,3-bis(2-fluoro-4-nitrophenoxy)- (9CI) (CA INDEX NAME)

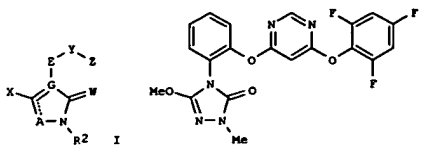


IT **210492-62-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy]benzenamines)

RN 210492-62-9 CAPLUS
CN Benzenamine, 4,4'-[1,3-phenylenebis(oxy)]bis[3-fluoro- (9CI) (CA INDEX NAME)



L52 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB The title compds. [I; E = (un)substituted 1,2-phenylene; A = O, S, N, NR5, CR6; G = C, N (provided that when G = C, then A = O, S, NR5 and the floating double bond is attached to G; and when G = N, then A = N, CR6 and the floating double bond is attached to A); W = O, S, NH, N(C1-6 alkyl), NO(C1-6 alkyl); X = OR1, S(O)mR1, halo; Y = O, S(O)n, NR7, etc.; Z = substituted Ph, pyrimidinyl, triazinyl; R1 = C1-6 alkyl, C1-6 haloalkyl, C2-6 alkenyl, etc.; R2 = H, C1-6 alkyl, C1-6 haloalkyl, etc.; R5 = H, C1-6 alkyl, C1-6 haloalkyl, etc.; R6 = H, halo, C1-6 alkyl, etc.], useful for controlling plant diseases caused by fungal plant pathogens, were prepared
Thus, 6-step synthesis of the title compound II, which showed 100% control against Erysiphe graminis f. sp. tritici and Puccinia recondita at 500 g/ha, is described.
ACCESSION NUMBER: 1998:323238 CAPLUS
DOCUMENT NUMBER: 129:4664
TITLE: Preparation of fungicidal cyclic amides
INVENTOR(S): Walker, Michael Paul
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA; Walker, Michael Paul
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

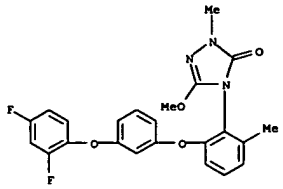
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820003	A1	19980514	WO 1997-US17608	19971001
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9746603	A1	19980529	AU 1997-46603	19971001
EP 937051	A1	19990825	EP 1997-945385	19971001
R: DE, ES, FR, GB, IT				

L52 ANSWER 22 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

BR 9712713	A	19991026	BR 1997-12713	19971001
CN 1242767	A	20000126	CN 1997-181160	19971001
JP 2001503424	T2	20010313	JP 1998-521383	19971001
ZA 9708958	A	19990407	ZA 1997-8958	19971007
MX 9904066	A	20000131	MX 1999-4066	19990430
KR 2000052948	A	20000825	KR 1999-703821	19990430

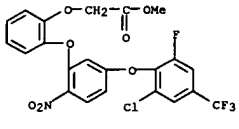
PRIORITY APPLN. INFO.: US 1996-29965P P 19961101
WO 1997-US17608 W 19971001

OTHER SOURCE(S): MARPAT 129:4664
IT 207504-84-5P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of fungicidal cyclic amides)
RN 207504-84-5 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,4-difluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 23 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title compds. are new low application rate post-emergence herbicides with safety on broadleaf crops. The paper describes the elaboration of existing chemistries which led to the discovery of he arylyoxybenzenes as well as the synthetic methodologies which were developed.
Structure-activity relationships are given.
ACCESSION NUMBER: 1998:294658 CAPLUS
DOCUMENT NUMBER: 129:13444
TITLE: Synthesis and herbicidal activity of bisaryloxybenzenes: a new structural class of protox inhibitors derived from N-phenylbenzotriazoles
AUTHOR(S): Crews, A. D.; Condon, M. E.; Gill, S. D.; Karp, G. M.; Manfredi, M. C.; Birk, J. H.
CORPORATE SOURCE: Cyanamid Agriic. Res. Cent., Am. Cyanamid Co., Princeton, NJ, 08543-0400, USA
SOURCE: ACS Symposium Series (1998), 686(Synthesis and Chemistry of Agrochemicals V), 48-54
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 165379-64-6P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as herbicide)
RN 165379-64-6 CAPLUS
CN Acetic acid, [2-[5-(2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polymer is prepared by condensing ≥1 fluorine-containing aromatic ether diamine with ≥1 dicarboxylic acid (derivative). This aromatic polyamide has a low permittivity and birefringence, excellent transparency, processability, mech. strength, and thermal stability. Thus, a film having low birefringence and heat stability was molded from the copolymer of 1,3-bis(3-aminophenoxy)-4-trifluoromethylbenzene and terephthaloyl dichloride.
ACCESSION NUMBER: 1998:175770 CAPLUS
DOCUMENT NUMBER: 128:205262
TITLE: An optical fluorine-containing aromatic polyether-polyamide or polyimide
INVENTOR(S): Yamashita, Wataru; Yoshimura, Tomomi; Shibuya, Atsushi; Sakata, Yoshihiro; Oikawa, Hideaki; Takuma, Keisuke; Ohta, Masahiro
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: Eur. Pat. Appl., 58 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

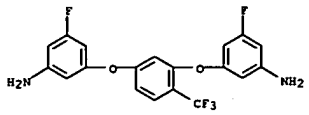
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 826717	A1	19980304	EP 1997-306601	19970828
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 5990261	A	19991123	US 1997-917387	19970826
CN 1184123	A	19980610	CN 1997-120637	19970829
US 6103860	A	20000815	US 1999-332534	19990614

PRIORITY APPLN. INFO.: JP 1996-228551 A 19960829
US 1997-917387 A3 19970826

IT 203807-92-5P 203807-93-6P 203807-95-8P
203807-96-9P 203807-98-1P 203808-00-8P
203808-01-9P 203808-02-0P 203808-05-3DP,
reaction products with benzoyl chloride 203808-08-6DP, reaction products with benzoyl chloride 203808-09-7DP, reaction products with benzoyl chloride
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(fluorine-containing aromatic polyether-polyamide or polyimide manufacture for film
having low permittivity and birefringence, excellent transparency, processability, mech. strength, and thermal stability)
RN 203807-92-5 CAPLUS
CN Benzoyl chloride, 4,4'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] (9CI) (CA INDEX NAME)

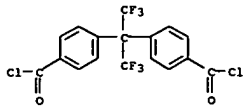
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



CM 2

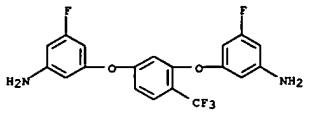
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 203807-93-6 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] (9CI) (CA INDEX NAME)

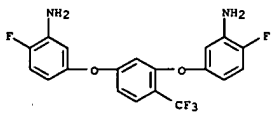
CM 1

CRN 203807-91-4
CMF C19 H13 F5 N2 O2



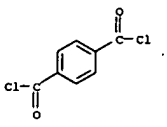
CM 2

CRN 99-63-8
CMF C8 H4 Cl2 O2



CM 2

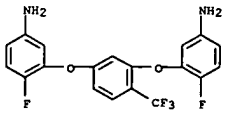
CRN 100-20-9
CMF C8 H4 Cl2 O2



RN 203807-98-1 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[4-fluorobenzenamine] (9CI) (CA INDEX NAME)

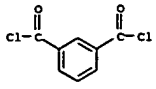
CM 1

CRN 203807-97-0
CMF C19 H13 F5 N2 O2



CM 2

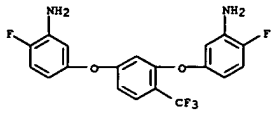
CRN 2351-37-3
CMF C14 H8 Cl2 O2



RN 203807-95-8 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

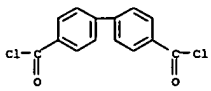
CM 1

CRN 203807-94-7
CMF C19 H13 F5 N2 O2



CM 2

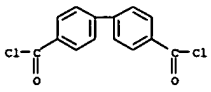
CRN 2351-37-3
CMF C14 H8 Cl2 O2



RN 203807-96-9 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

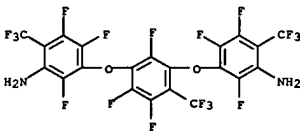
CRN 203807-94-7
CMF C19 H13 F5 N2 O2



RN 203808-00-8 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 4-(trifluoromethyl)-, polymer with 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

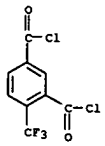
CM 1

CRN 203807-99-2
CMF C21 H4 F18 N2 O2



CM 2

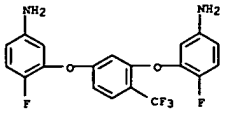
CRN 1483-49-4
CMF C9 H3 Cl2 F3 O2



RN 203808-01-9 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 4-(trifluoromethyl)-, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[4-fluorobenzenamine] (9CI) (CA INDEX NAME)

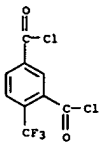
CM 1

L52 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 203807-97-0
CMF C19 H13 F5 N2 O2



CM 2

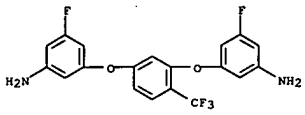
CRN 1483-49-4
CMF C9 H3 Cl2 F3 O2



RN 203808-02-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonyl dichloride, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[5-fluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

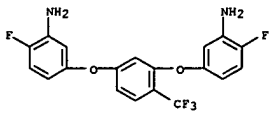
CRN 203807-91-4
CMF C19 H13 F5 N2 O2



CM 2

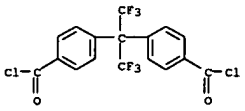
CRN 2351-37-3

L52 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 203807-94-7
CMF C19 H13 F5 N2 O2



CM 2

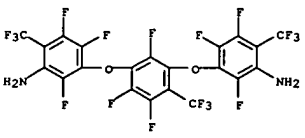
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 203808-09-7 CAPLUS
CN 1,4-Benzenedicarbonyl dichloride, polymer with 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

CM 1

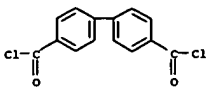
CRN 203807-99-2
CMF C21 H4 F18 N2 O2



CM 2

CRN 100-20-9
CMF C8 H4 Cl2 O2

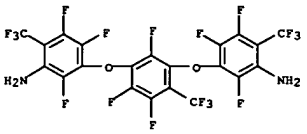
L52 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CMF C14 H8 Cl2 O2



RN 203808-05-3 CAPLUS
CN Benzoyl chloride, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 3,3'-[[2,4,5-trifluoro-6-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[2,4,5-trifluoro-6-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

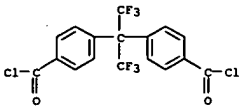
CM 1

CRN 203807-99-2
CMF C21 H4 F18 N2 O2



CM 2

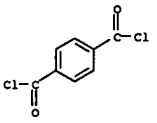
CRN 1102-92-7
CMF C17 H8 Cl2 F6 O2



RN 203808-08-6 CAPLUS
CN Benzoyl chloride, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 3,3'-[[4-(trifluoromethyl)-1,3-phenylene]bis(oxy)]bis[6-fluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

L52 ANSWER 24 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB Mixing a resin and a certain phthalocyanine compound having the ability to absorb near IR rays, provides a resin composition which is useful as a heat radiation-shielding material which is semi-transparent or transparent for visible light but blocks heat rays. C black may also be added to enhance the heat-shielding effect. Thus, polycarbonate containing 0.003% VOPc(BuNH)8F8 [Pc = phthalocyanine; substituent octakis(butylamino)octafluorophthalocyanaine] was molded into a film having transmittance and heat transmittance (JIS R-3106) 78.9 and 62.4%; vs. 89.2 and 84.6, resp., for polycarbonate without the IR absorber.

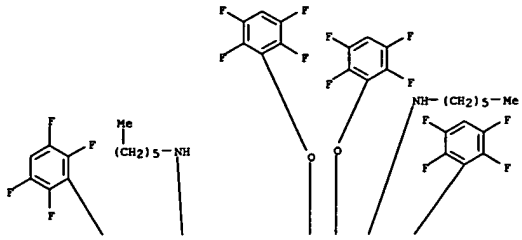
ACCESSION NUMBER: 1998:79369 CAPLUS
DOCUMENT NUMBER: 128:141505
TITLE: Compositions for shields for heat radiation
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Japan
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 180,488, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5712332	A	19980127	US 1995-478739	19950607
PRIORITY APPLN. INFO.:			JP 1993-4326 A	19930113
			US 1994-180488 B2	19940112

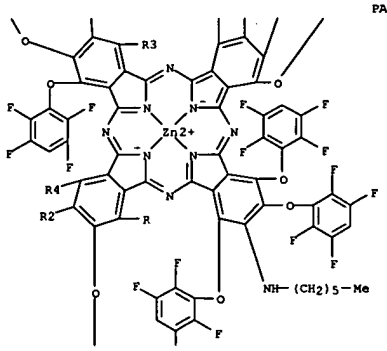
OTHER SOURCE(S): MARPAT 128:141505
IT **163464-84-4**
RL: MOA (Modifier or additive use); USES (Uses)
(polymer compns. containing certain phthalocyanines for shields for heat radiation)
RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

L52 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

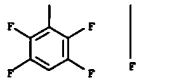


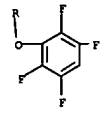
PAGE 2-A



L52 ANSWER 25 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

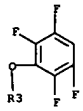
PAGE 3-A

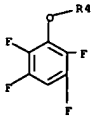




Me—(CH2)5—NH—R2

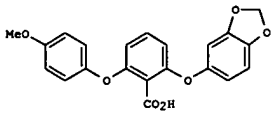
PAGE 4-A





REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L52 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



II

AB The title compds. Ar2-X-Ar3-Y-Ar1 [I; X, Y = O, S, NH, etc.; Ar1, Ar2 = aryl and heteroaryl containing one ring or 2-3 fused rings; Ar3 = aryl, heteroaryl], useful in the treatment of hypertension, cardiovascular disease, asthma, pulmonary hypertension, inflammatory diseases, ophthalmol. disease, menstrual disorders, obstetric conditions, wounds, gastroenteric disease, renal failure, immunosuppressant-mediated renal vasoconstriction, erythropoietin-mediated vasoconstriction endotoxin shock, anaphylactic shock and hemorrhagic shock, were prepared Thus, reaction of Et 2,6-difluorobenzoate and sodium 3,4-methylenedioxyphenoxide in DMSO followed by reaction of the resulting Et 2-fluoro-6-[3,4-(methylenedioxy)phenoxy]benzoate with sodium 4-methoxyphenoxide in DMSO, and hydrolysis of the ester with NaOH/EtOH afforded the title compound II.
Almost all of the compds. I have an IC50 of less than 10 μM and many have an IC50 less than about 1 μM for either or both of the ETA and ETB receptors.

ACCESSION NUMBER: 1997:564939 CAPLUS
DOCUMENT NUMBER: 127:161816
TITLE: Preparation of aryl- and/or heteroaryl-substituted benzoic acids as endothelin antagonists and/or agonists
INVENTOR(S): Chan, Ming Fai; Balaji, Vitukudi Narayanaiyengar; Castillo, Rosario Silverstre; Kois, Adam; Raju, Bore Gowda; Wu, Chengde
PATENT ASSIGNEE(S): Texas Biotechnology Corp., USA
SOURCE: PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9725321	A2	19970717	WO 1997-US366	19970103
WO 9725321	A3	19970912		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,

L52 ANSWER 26 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

US 5977117	A	19991102	US 1996-590139	19960123
AU 9715324	A1	19970801	AU 1997-15324	19970103
EP 876364	A2	19981111	EP 1997-901420	19970103

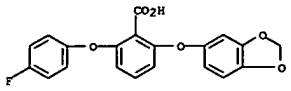
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI

PRIORITY APPLN. INFO.:	US 1996-583871	A 19960105
	US 1996-590139	A 19960123
	WO 1997-US366	W 19970103

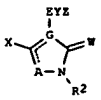
OTHER SOURCE(S): MARPAT 127:161816

IT **193757-00-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of aryl- and/or heteroaryl-substituted benzoic acids as endothelin antagonists and/or agonists)

RN 193757-00-5 CAPLUS
CN Benzoic acid, 2-(1,3-benzodioxol-5-yloxy)-6-(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



L52 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB Preparation and title uses are given for I [E = (un)substituted 1,2-phenylene, naphthalene or heterocyclyl; A = O, S, N, NR3 or CR4; G = C or N; when G is C, then A is O, S or NR3 and a the floating double bond is attached to G; and when G is N, than A is N or CR4 and the floating double bond is attached to A; W = O, S, NH, N(C1-C6 alkyl) or NO(C1-C6 alkyl); X = H, OR1, SOmR1, halo, C1-C6 alkyl, C1-C6 haloalkyl, C3-C6 cycloalkyl; cyano, NH2, NHR1, N(C1-C6 alkyl)R1, NH(C1-C6 alkoxy) or N(C1-C6 alkoxy)R1; R2 = H, C1-C6 alkyl, C1-C6 haloalkyl, C2-C6 haloalkyl, C2-C6 alkenyl, C2-C6 haloalkenyl, C2-C6 alkynyl, C2-C6 haloalkynyl, C3-C6 cycloalkyl, C2-C4 alkylcarbonyl, C2-C6 alkoxycarbonyl, hydroxy, C1-C2 alkoxy or acetyloxy; R1= (halo)alkyl, (halo)alkenyl, etc.; R3= H, (halo)alkyl, etc.; Y = O, CO, SO, etc.; Z = (un)substituted alkyl,alkenyl or alkynyl, R4 = H, halo, alkyl, etc.; m = 0, 1 or 2].

ACCESSION NUMBER:	1997:168566 CAPLUS
DOCUMENT NUMBER:	126:153997
TITLE:	Preparation of arthropodicidal and fungicidal cyclic amides
INVENTOR(S):	Brown, Richard James; Chan, Dominic Ming-Tak; Howard, Michael Henry, Jr.; Daniel, Dilon Jancey; Clark, David Alan; Selby, Thomas Paul
PATENT ASSIGNEE(S):	E. I. Du Pont de Nemours & Co., USA; Brown, Richard James; Chan, Dominic Ming-Tak; Howard, Michael Henry, Jr.; Daniel, Dilon Jancey; Clark, David Alan; Selby, Thomas Paul
SOURCE:	PCT Int. Appl., 20 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9700612	A1	19970109	WO 1996-US10326	19960613
W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9661770	A1	19970122	AU 1996-61770	19960613

L52 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

EP 836384	A1	19980422	EP 1996-919422	19960613

R: DE, FR, GB, IT

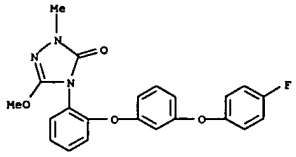
CN 1188394	A	19980722	CN 1996-194937	19960613
BR 9609001	A	19990629	BR 1996-9001	19960613
JP 11508257	T2	19990721	JP 1996-503876	19960613
ZA 9605196	A	19971219	ZA 1996-5196	19960619

PRIORITY APPLN. INFO.:	US 1995-341P	P 19950620
	WO 1996-US10326	W 19960613

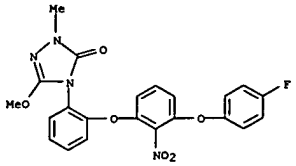
OTHER SOURCE(S): MARPAT 126:153997

IT **186979-62-4P 186979-63-5P 186979-65-7P**
186980-15-4P 186980-17-6P 186980-20-1P
186980-51-8P 186980-52-9P 186980-53-0P
186981-79-3P 186981-82-8P 186981-83-9P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation as arthropodicide and fungicide)

RN 186979-62-4 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

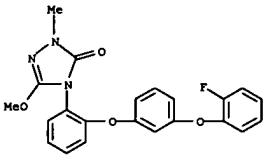


RN 186979-63-5 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)-2-nitrophenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

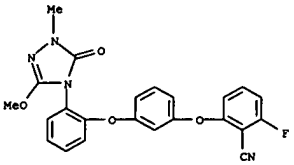


RN 186979-65-7 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

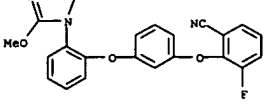
L52 ANSWER 27 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



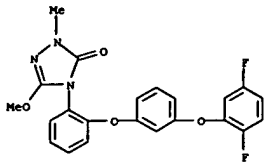
RN 186980-15-4 CAPLUS
CN Benzonitrile, 2-[3-[2-(1,5-dihydro-3-methoxy-1-methyl-5-oxo-4H-1,2,4-triazol-4-yl)phenoxy]phenoxy]-6-fluoro- (9CI) (CA INDEX NAME)



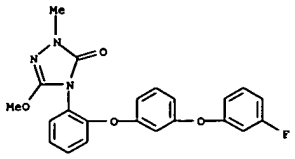
RN 186980-17-6 CAPLUS
CN Benzonitrile, 2-[3-[2-(1,5-dihydro-3-methoxy-1-methyl-5-oxo-4H-1,2,4-triazol-4-yl)phenoxy]phenoxy]-3-fluoro- (9CI) (CA INDEX NAME)



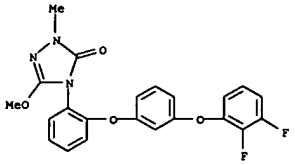
RN 186980-20-1 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,5-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



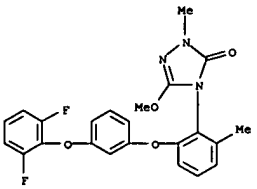
RN 186980-51-8 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(3-fluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

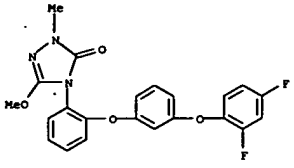


RN 186980-52-9 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,3-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

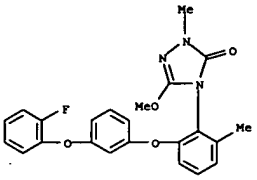


RN 186980-53-0 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,4-difluorophenoxy)phenoxy]phenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

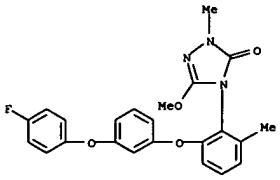




RN 186981-79-3 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2-fluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



RN 186981-82-8 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(4-fluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



RN 186981-83-9 CAPLUS
CN 3H-1,2,4-Triazol-3-one, 4-[2-[3-(2,6-difluorophenoxy)phenoxy]-6-methylphenyl]-2,4-dihydro-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)

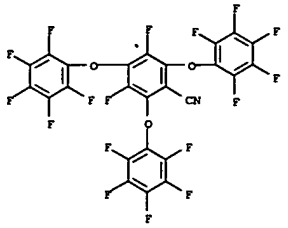
L52 ANSWER 28 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB The introduction of tetrafluoro- and pentafluorophenoxy moieties into a variety of pentafluorobenzenes C6F5R (R = CF3, CN, NO2) is accomplished by employing the trimethylsilyl ethers (siloxanes) 4-HC6F4OSiMe3 (1) and C6F5OSiMe3 (2) as transfer agents. Depending on the nature of the electrophile, the stoichiometry of the reaction, and the reaction conditions, polysubstituted polyfluorodiphenyl ethers are obtained. Excess C6F5R results in the formation of 1,4-monosubstituted benzenes (di-Ph ethers) 4-(4'-XC6F4O)C6F4R [R = CF3, X = H (3), F (4); R = CN, X = H (5), F (6); R = NO2, X = H, F]. When R = NO2, the 1,2-substituted isomers are also detected. Addnl. byproducts that are isolable are the disubstituted benzenes 2,4-(4'-XC6F4O)2C6F3R (R = CN, X = H; R = CN, X = F; R = NO2, X = H; R = NO2, X = F). Excess 1 or 2, when reacted with C6F5R, results in the formation of the trisubstituted benzenes 2,4,6-(4'-XC6F4O)3C6F2R [R = CN, X = H (13); R = CN, X = F (14); R = NO2, X = H (15); R = NO2, X = F (16)]. Hydrolysis of nitrile-containing di-Ph ethers (5, 6, 13, and 14) under acidic conditions results in the substituted benzoic acids 4-(4'-XC6F4O)C6F4COOH [X = H (17), F (18)] and 2,4,6-(4'-XC6F4O)3C6F2COOH (X = H, F). These acids are decarboxylated to form the resp. hydropolyfluoro aroms. (4-HC6F4)2O (23), 4-(C6F5O)C6F4H, and 2,4,6-(4'-XC6F4O)3C6F2H (X = H, F). In addition to acid 17, alkaline hydrolysis of 5 gives the α-hydroxy-substituted acid 4-(4'-HC6F4O)C6F3(2-OH)COOH. Alkaline hydrolysis under milder conditions enables the isolation of the amide 4-(4'-HC6F4O)C6F4CONH2 (26). The compds. 3, 4, 14-18, 23, and 26 have been characterized by single-crystal x-ray diffraction anal. The presence of a hydrogen atom in 3, as well as protection of the reactive 4'-position with a trifluoromethyl group, gives 4-(4'-CF3C6F4O)C6F4Li (3a) on reaction with n-butyllithium. In situ reactions between 3a and ketones or acid chlorides result in novel mono- or bis(perfluorodiphenyl ether)-substituted tertiary alcs. 4-(4'-CF3C6F4O)C6F4C(R)(R')OH (R/R' = CF3, C6F5, Ph, C3F7/C8F17, C6F5/CH3), [4-(4'-CF3C6F4O)C6F4]2C(R)OH (R = CF3 , C3F7, C7F15, i-C3H7). When R = i-C3H7, the major product is the ester [4-(4'-CF3C6F4O)C6F4]2C(i-C3H7)OC(O)(i-C3H7). The ketone C3F7(C8F17)CO is synthesized and characterized. Reaction of 3a with hexafluoroglutaryl chloride gives [4-(4'-CF3C6F4O)C6F4]2C(OH)(CF2)3C(O)C6F4O(4''-C6F4CF3), whereas with di-Me carbonate or carbonyl fluoride, [4-(4'-CF3C6F4O)C6F4]2CO as well as small amts. of [4-(4'-CF3C6F4O)C6F4]3COH and [4-(4'-CF3C6F4O)C6F4]3COC(O)C4H9 are formed. Residual n-butyllithium cleaves the intermediate 4-(4'-CF3C6F4O)C6F4COOCH3 to form 4-CF3C6F4C4H9 and 4-HOC6F4COOCH3.

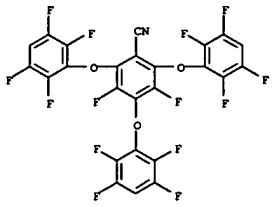
ACCESSION NUMBER: 1997:96834 CAPLUS
DOCUMENT NUMBER: 126:89102
TITLE: Studies on the Reactivity of Tetrafluoro- and Pentafluorophenyl Trimethylsilyl ether with Pentafluorobenzenes. Chemistry and X-ray Structural Investigations of Polyfluorodiphenyl ethers
AUTHOR(S): Krumm, Burkhard; Vij, Ashwani; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 3844-2343, USA
SOURCE: Inorganic Chemistry (1997), 36(3), 366-381
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **16031-36-0P 185697-15-8P 185697-20-5P**
185697-22-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(chemical of polyfluorodiphenyl ethers)

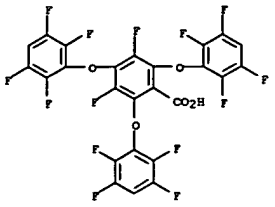
RN 16031-36-0 CAPLUS
CN Benzonitrile, 3,5-difluoro-2,4,6-tris(pentafluorophenoxy)- (8CI, 9CI) (CA INDEX NAME)



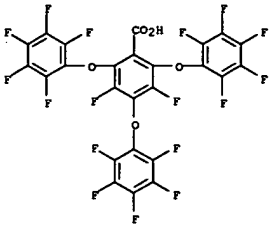
RN 185697-15-8 CAPLUS
CN Benzonitrile, 3,5-difluoro-2,4,6-tris(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)



RN 185697-20-5 CAPLUS
CN Benzoic acid, 3,5-difluoro-2,4,6-tris(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)

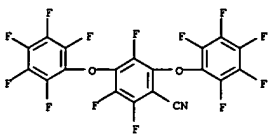


RN 185697-22-7 CAPLUS
CN Benzoic acid, 3,5-difluoro-2,4,6-tris(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

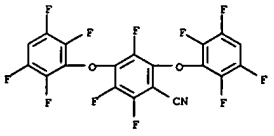


IT **15963-72-1P 185697-11-4P 185697-13-6P**
185697-14-7P 185697-17-0P 185697-18-1P
185697-21-6P 185697-23-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(chemical of polyfluorodiphenyl ethers)

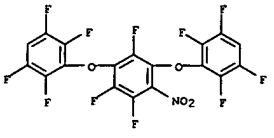
RN 15963-72-1 CAPLUS
CN Benzonitrile, 2,3,5-trifluoro-4,6-bis(pentafluorophenoxy)- (8CI, 9CI) (CA INDEX NAME)



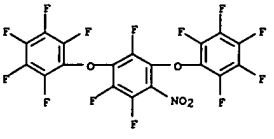
RN 185697-11-4 CAPLUS
CN Benzonitrile, 2,3,5-trifluoro-4,6-bis(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)



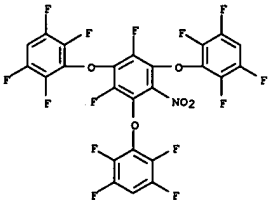
RN 185697-13-6 CAPLUS
CN Benzene, 1,2,4-trifluoro-6-nitro-3,5-bis(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)



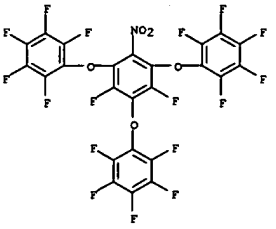
RN 185697-14-7 CAPLUS
CN Benzene, 1,2,4-trifluoro-6-nitro-3,5-bis(pentafluorophenoxy)- (9CI) (CA INDEX NAME)



RN 185697-17-0 CAPLUS
CN Benzene, 1,3-difluoro-5-nitro-2,4,6-tris(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)

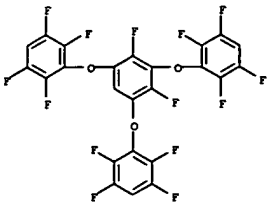


RN 185697-18-1 CAPLUS
CN Benzene, 1,3-difluoro-5-nitro-2,4,6-tris(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

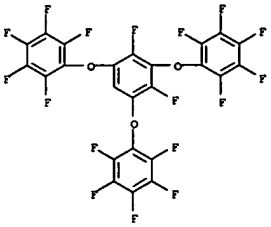


RN 185697-21-6 CAPLUS
CN Benzene, 2,4-difluoro-1,3,5-tris(2,3,5,6-tetrafluorophenoxy)- (9CI) (CA INDEX NAME)

L52 ANSWER 28 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

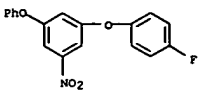


RN 185697-23-8 CAPLUS
CN Benzene, 2,4-difluoro-1,3,5-tris(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

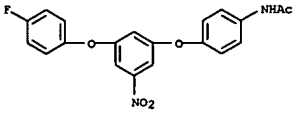


REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L52 ANSWER 29 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB A general method for the synthesis of 1,3-bis(aryloxy)-5-nitrobenzenes by the condensation of phenols with 1,3,5-trinitrobenzene or aryl 3,5-dinitrophenyl ethers in the presence of solid K2CO3 in amide-type dipolar aprotic solvents has been developed.
ACCESSION NUMBER: 1996:477446 CAPLUS
DOCUMENT NUMBER: 125:221267
TITLE: A general method for the synthesis of 1,3-bis(aryloxy)-5-nitrobenzenes
AUTHOR(S): Shevelev, Svyatoslva; Dutov, Mikhail D.; Vatsadze, Irina A.; Korolev, Maksim A.; Rusanov, Aleksandr L.
CORPORATE SOURCE: N. D. Zelinsky Inst. Organic Chem., Russian Academy of Sci., Moscow, 117913, Russia
SOURCE: Mendeleev Communications (1996), (4), 155-157
CODEN: MENCEX; ISSN: 0959-9436
PUBLISHER: Russian Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 168839-60-9P 181507-42-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 168839-60-9 CAPLUS
CN Benzene, 1-(4-fluorophenoxy)-3-nitro-5-phenoxy- (9CI) (CA INDEX NAME)



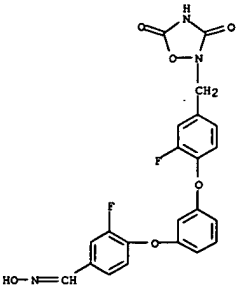
RN 181507-42-6 CAPLUS
CN Acetamide, N-[4-[3-(4-fluorophenoxy)-5-nitrophenoxy]phenyl]- (9CI) (CA INDEX NAME)



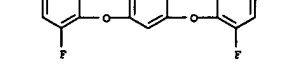
L52 ANSWER 30 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The title compds. (I; ring A = imidazolyl, tetrazolyl, Q, Q1; wherein X = O, S, NH; Y = N, CH; R1 = H, halo, lower alkyl, lower hydroxyalkyl, lower alkoxy, CF3, NO2, CO2H, lower alkoxycarbonyl, CH2 NHCONHCO2R5, CH:NOH; wherein R5 = H, lower alkyl; R2, R3 = H, halo; R4 = H, HO; n = 0,1), which lower blood sugar based on the enhancement of insulin sensitivity, have low toxicity, and are useful as antidiabetics for treating or preventing noninsulin-dependent diabetes and various diabetes complications (no data), are prepared Thus, 3-(4-trifluoromethylphenoxy)phenol 6, K2CO3 3.3, and 4-fluorobenzaldehyde 3.0 g were stirred in DMSO at 100° for 10 h to give 6 g 4-[3-(4-trifluoromethylphenoxy)phenoxy]benzaldehyde (II; R = CHO), which (6 g) was condensed with 1.8 g hydroxylamine hydrochloride in the presence of 2.0 g NH4OAc in aqueous MeOH at room temperature for 2 h and under reflux for 30 min to give the oxime II (R = CH:NOH) (4.0 g). The latter oxime (3.0 g) was dissolved in 30 mL EtOH and after adding 1.2 g pyridine-borane complex, treated dropwise with 12 mL 4 n aqueous HCl, and left to stand at room temperature for 4 h to give 2.5 g II (R = CH2NHOH), which (1.5 g) was dissolved in THF, treated with 0.7 g ethoxycarbonyl isocyanate, left to stand for 30 min, made alkaline with 1 N aqueous NaOH, left to stand at room temperature for 2 h, and made acidic with 6 N aqueous HCl to give 1.0 g the 1,2,4-oxadiazolidine-3,5-dione derivative II (R = Q2).
ACCESSION NUMBER: 1996:326164 CAPLUS
DOCUMENT NUMBER: 125:10826
TITLE: Preparation of p-[(phenoxy or benzyloxy)phenoxy]benzylazole derivatives for lowering blood sugar
INVENTOR(S): Niigata, Kunihiro; Takahashi, Takumi; Maruyama, Tatsuya; Suzuki, Takayuki; Onda, Kenichi; Konya, Tooru; Noshiro, Osamu
PATENT ASSIGNEE(S): Yamanouchi Pharma Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08059638	A2	19960305	JP 1994-202503	19940826
PRIORITY APPLN. INFO.:			JP 1994-202503	19940826

OTHER SOURCE(S): MARPAT 125:10826
IT 177031-89-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of p-[(phenoxy or benzyloxy)phenoxy]benzylazole derivs. for lowering blood sugar as antidiabetics)
RN 177031-89-9 CAPLUS
CN Benzaldehyde, 4-[3-[4-[(3,5-dioxo-1,2,4-oxadiazolidin-2-yl)methyl]-2-fluorophenoxy]phenoxy]-3-fluoro-, 1-oxime (9CI) (CA INDEX NAME)

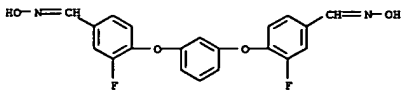


IT 163301-37-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of p-[(phenoxy or benzyloxy)phenoxy]benzylazole derivs. for lowering blood sugar as antidiabetics)
RN 163301-37-9 CAPLUS
CN Benzaldehyde, 4,4'-[1,3-phenylenebis(oxy)]bis[3-fluoro- (9CI) (CA INDEX NAME)

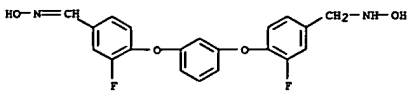


IT 177032-00-7P 177032-01-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of p-[(phenoxy or benzyloxy)phenoxy]benzylazole derivs. for lowering blood sugar as antidiabetics)
RN 177032-00-7 CAPLUS
CN Benzaldehyde, 4,4'-[1,3-phenylenebis(oxy)]bis[3-fluoro-, dioxime (9CI) (CA INDEX NAME)

L52 ANSWER 30 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 177032-01-8 CAPLUS
CN Benzaldehyde, 3-fluoro-4-[3-[2-fluoro-4-[(hydroxyamino)methyl]phenoxy]phen oxy]-, oxime (9CI) (CA INDEX NAME)



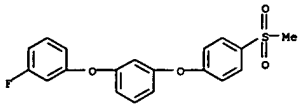
L52 ANSWER 31 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB Alkyl aryl sulfones, e.g., 2-(4-methylsulfonylphenoxy)-6-(3-trifluoromethylphenoxy)pyridine, are disclosed which are useful as high temperature and magnetic recording media lubricants. Also disclosed are lubricating mixts. containing the alkyl aryl sulfones, magnetic recording media containing the alkyl aryl sulfones, and a process for lubricating the magnetic recording media with the alkyl aryl sulfones.

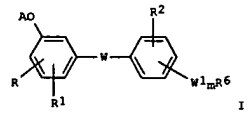
ACCESSION NUMBER: 1996:71502 CAPLUS
DOCUMENT NUMBER: 124:150632
TITLE: Alkyl aryl sulfones and their use as lubricants in high temperature and magnetic recording media applications
INVENTOR(S): Pawloski, Chester E.; Nader, Bassam S.
PATENT ASSIGNEE(S): The Dow Chemical Company, USA
SOURCE: U.S., 12 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5480568	A	19960102	US 1994-279036	19940722
PRIORITY APPLN. INFO.:			US 1994-279036	19940722

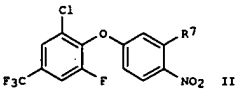
OTHER SOURCE(S): MARPAT 124:150632
IT 173447-54-6P
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(preparation of alkyl aryl sulfones and their use as lubricants in high temperature and magnetic recording media applications)
RN 173447-54-6 CAPLUS
CN Benzene, 1-(3-fluorophenoxy)-3-[4-(methylsulfonyl)phenoxy]- (9CI) (CA INDEX NAME)



L52 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

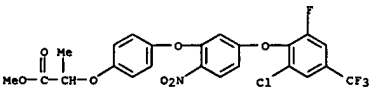
AB Title compds. {I; A = (un)substituted Ph, 2-pyridyl, 1-alkylimidazolyl, etc.; R = NO2, halo, cyano, (halo)alkylsulfonyl; R1 = H, halo, NO2; R2 = H, halo, (halo)alkyl; R6 = (CR3R4)nR5; R3,R4 = H, (halo)alkyl; R3R4 = (CH2)2-5; R5 = cyano, CO2H, alkoxycarbonyl, etc.; W,W1 = O, S, (alkyl)imino; m = 0 or 1; n = 0-5} were prepared Thus, Ph ether II (R7 = NO2) was condensed with 4-(HO)C6H4OCHMeCO2Me to give II [R7 = OC6H4(OCHMeCO2Me)-4]. II (R7 = OC6H4(CO2Me)-3] gave 45-100% control of 4 weeds (e.g., 100% control of Amaranthus retroflexus) at 0.125kg/ha postemergent with slight to trace effect on 4 crops, e.g., winter wheat.

ACCESSION NUMBER: 1995:701871 CAPLUS
DOCUMENT NUMBER: 123:111672
TITLE: Preparation of {[(aryloxy)phenoxy]phenoxy}alkanoates and analogs as herbicides
INVENTOR(S): Condon, Michael E.; Crews, Alvin D., Jr.
PATENT ASSIGNEE(S): American Cyanamid Co., USA
SOURCE: Eur. Pat. Appl., 68 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

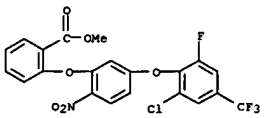
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 647612	A1	19950412	EP 1994-115265	19940928
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5424280	A	19950613	US 1993-133698	19931007
CA 2133690	AA	19950408	CA 1994-2133690	19941005
JP 07165659	A2	19950627	JP 1994-266156	19941005
NO 9403765	A	19950410	NO 1994-3765	19941006
AU 9474470	A1	19950427	AU 1994-74470	19941006
BR 9404010	A	19950613	BR 1994-4010	19941006
HU 69022	A2	19950828	HU 1994-2891	19941006
ZA 9407834	A	19960206	ZA 1994-7834	19941006
CN 1104207	A	19950628	CN 1994-116340	19941007
PRIORITY APPLN. INFO.:			US 1993-133698 A	19931007

L52 ANSWER 32 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

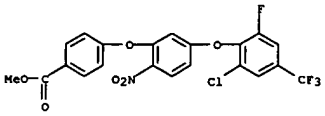
OTHER SOURCE(S): MARPAT 123:111672
IT 165379-41-9P 165379-42-0P 165379-43-1P
165379-44-2P 165379-46-4P 165379-59-9P
165379-60-2P 165379-62-4P 165379-63-5P
165379-64-6P 165379-65-7P 165379-78-2P
165379-83-9P 165379-86-2P 165379-92-0P
165379-93-1P 165379-94-2P 165380-05-2P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of {[(aryloxy)phenoxy]phenoxy}alkanoates and analogs as herbicides)
RN 165379-41-9 CAPLUS
CN Propanoic acid, 2-[4-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



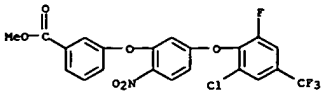
RN 165379-42-0 CAPLUS
CN Benzoic acid, 2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]-, methyl ester (9CI) (CA INDEX NAME)



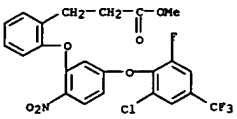
RN 165379-43-1 CAPLUS
CN Benzoic acid, 4-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]-, methyl ester (9CI) (CA INDEX NAME)



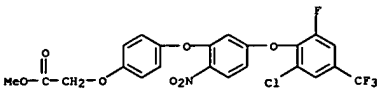
RN 165379-44-2 CAPLUS
CN Benzoic acid, 3-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]-, methyl ester (9CI) (CA INDEX NAME)



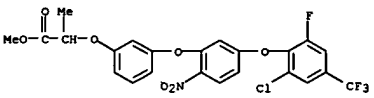
RN 165379-46-4 CAPLUS
CN Benzenepropanoic acid, 2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]-, methyl ester (9CI) (CA INDEX NAME)



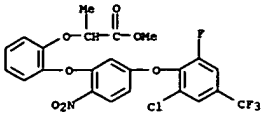
RN 165379-59-9 CAPLUS
CN Acetic acid, [4-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



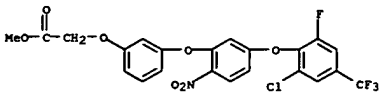
RN 165379-60-2 CAPLUS
CN Propanoic acid, 2-[3-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



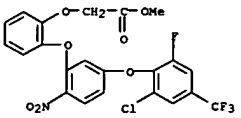
RN 165379-62-4 CAPLUS
CN Propanoic acid, 2-[2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



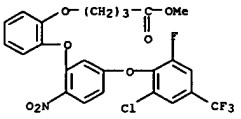
RN 165379-63-5 CAPLUS
CN Acetic acid, [3-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



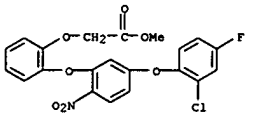
RN 165379-64-6 CAPLUS
CN Acetic acid, [2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



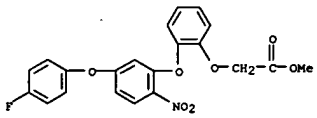
RN 165379-65-7 CAPLUS
CN Butanoic acid, 4-[2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



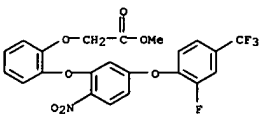
RN 165379-78-2 CAPLUS
CN Acetic acid, [2-[5-(2-chloro-4-fluorophenoxy)-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



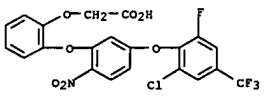
RN 165379-83-9 CAPLUS
CN Acetic acid, [2-[5-(4-fluorophenoxy)-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



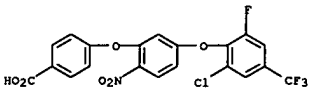
RN 165379-86-2 CAPLUS
CN Acetic acid, [2-[5-[2-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



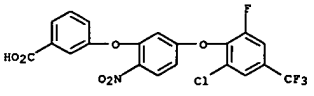
RN 165379-92-0 CAPLUS
CN Acetic acid, [2-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]- (9CI) (CA INDEX NAME)



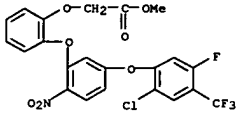
RN 165379-93-1 CAPLUS
CN Benzoic acid, 4-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]- (9CI) (CA INDEX NAME)



RN 165379-94-2 CAPLUS
CN Benzoic acid, 3-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]- (9CI) (CA INDEX NAME)

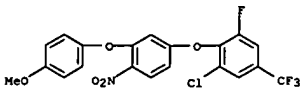


RN 165380-05-2 CAPLUS
CN Acetic acid, [2-[5-[2-chloro-5-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)

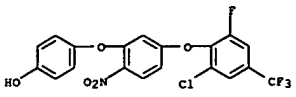


IT **165379-47-5P 165379-53-3P 165379-54-4P 165379-55-5P 165379-56-6P 165379-57-7P 165379-58-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of [[(aryloxy)phenoxy]phenoxy]alkanoates and analogs as herbicides)

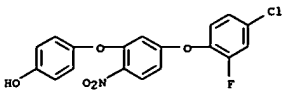
RN 165379-47-5 CAPLUS
CN Benzene, 4-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-(4-methoxyphenoxy)-1-nitro- (9CI) (CA INDEX NAME)



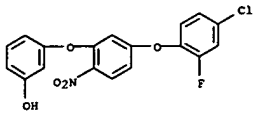
RN 165379-53-3 CAPLUS
CN Phenol, 4-[5-[2-chloro-6-fluoro-4-(trifluoromethyl)phenoxy]-2-nitrophenoxy]- (9CI) (CA INDEX NAME)



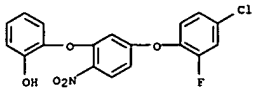
RN 165379-54-4 CAPLUS
CN Phenol, 4-[5-(4-chloro-2-fluorophenoxy)-2-nitrophenoxy]- (9CI) (CA INDEX NAME)



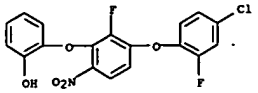
RN 165379-55-5 CAPLUS
CN Phenol, 3-[5-(4-chloro-2-fluorophenoxy)-2-nitrophenoxy]- (9CI) (CA INDEX NAME)



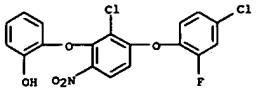
RN 165379-56-6 CAPLUS
CN Phenol, 2-[5-(4-chloro-2-fluorophenoxy)-2-nitrophenoxy]- (9CI) (CA INDEX NAME)



RN 165379-57-7 CAPLUS
CN Phenol, 2-[3-(4-chloro-2-fluorophenoxy)-2-fluoro-6-nitrophenoxy]- (9CI) (CA INDEX NAME)



RN 165379-58-8 CAPLUS
CN Phenol, 2-[2-chloro-3-(4-chloro-2-fluorophenoxy)-6-nitrophenoxy]- (9CI) (CA INDEX NAME)



AB Facile synthesis of Cp*Ru+ (Cp* = pentamethylcyclopentadienyl) π-complexes of highly electron deficient aroms., including 1,3,5-trichloro-, 1,2,4,5-tetrachloro-, pentachloro-, and hexachlorobenzene, is accomplished by the ligand exchange reaction with [Cp*Ru(CH3CN)3]+SO3CF3- in polar solvents under mild reaction conditions. The extraordinary activating ability of the Cp*Ru+ moiety is demonstrated by rapid and quant. nucleophilic substitution reactions of the 1,3,5-tri- and 1,2,4,5-tetrachlorobenzene π-complexes with potassium phenoxide, thiophenoxide, 4-aminophenoxide, 4-chlorophenoxide, and 4-fluorophenoxide.

This methodol. allows syntheses of highly substituted and functionalized aromatic compds.

ACCESSION NUMBER: 1995:701727 CAPLUS
DOCUMENT NUMBER: 123:169866
TITLE: Synthesis and Nucleophilic Substitution of Highly Chlorinated Arene (η5-Pentamethylcyclopentadienyl)ruthenium π-Complexes
AUTHOR(S): Dembek, Alexa A.; Fagan, Paul J.
CORPORATE SOURCE: Experimental Station, DuPont Central Research and Development, Wilmington, DE, 19880-0328, USA
SOURCE: Organometallics (1995), 14(8), 3741-5
CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 123:169866

IT **163709-89-5P 167227-89-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 163709-89-5 CAPLUS
CN Ruthenium(1+), [(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl][(1,2,3,4,5,6-η)-1,3,5-tris(4-fluorophenoxy)benzene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 163709-88-4
CMF C34 H30 F3 O3 Ru
CCI CCS

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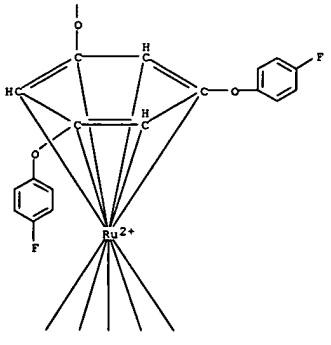
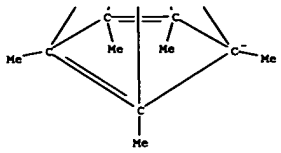
PAGE 2-A



PAGE 3-A



CM 2

CRN 37181-39-8
CMF C F3 O3 S

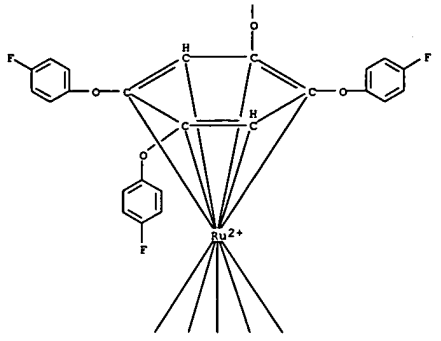
RN 167227-89-6 CAPLUS
CN Ruthenium(1+), [(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl][(1,2,3,4,5,6-η)-1,2,4,5-tetrakis(4-fluorophenoxy)benzene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 167227-88-5
CMF C40 H33 F4 O4 Ru
CCI CCS

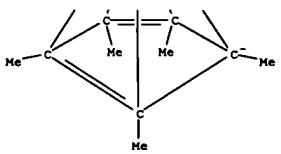
PAGE 1-A

PAGE 2-A



L52 ANSWER 33 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 3-A



CM 2

CRN 37181-39-8
CMF C F3 O3 S

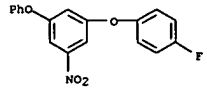
L52 ANSWER 34 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB A method of preparing 5-nitroresorcinol diaryl ethers bearing both different and equal substituents was elaborated. The method is based on the nucleophilic substitution of a nitro group in 1,3,5-(O2N)3C6H3 or in 3,5-dinitrophenyl aryl ethers by phenols in the presence of a base. Similarly, tris-Ph ether of phloroglucinol was obtained from 1-nitro-3,5-diphenoxybenzene.

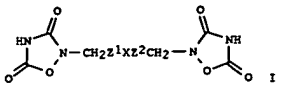
ACCESSION NUMBER:	1995:656708 CAPLUS
DOCUMENT NUMBER:	123:256255
TITLE:	Phenol substitution of nitro groups in 1,3,5-trinitrobenzene - method of preparation of 5-nitroresorcinol diaryl ethers and 3,5-dinitrophenyl aryl ethers
AUTHOR(S):	Shevelev, S. A.; Dutov, M. D.; Vatsadze, I. A.; Serushkina, O. V.; Korelev, M. A.; Rusanov, A. L.
CORPORATE SOURCE:	N. D. Zelinsky Inst. Org. Chem., Moscow, 117913, Russia
SOURCE:	Izvestiya Akademii Nauk, Seriya Khimicheskaya (1995), (2), 393-4 CODEN: IASKEA
PUBLISHER:	Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk
DOCUMENT TYPE:	Journal
LANGUAGE:	Russian
OTHER SOURCE(S):	CASREACT 123:256255

IT **168839-60-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(phenol substitution of nitro groups in trinitrobenzene in preparation of nitroresorcinol diaryl ethers and dinitrophenyl aryl ethers)

RN 168839-60-9 CAPLUS
CN Benzene, 1-(4-fluorophenoxy)-3-nitro-5-phenoxy- (9CI) (CA INDEX NAME)



L52 ANSWER 35 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB Title compds. I [Z, Z1 = (un)substituted phenylene; X = O, NR1, S(O)n, CO, CONR2, R2NCO, alkylene, alkenylene; R1, R2 = H, alkyl; n = 0, 1, 2] and their pharmaceutically acceptable salts, useful as hypoglycemics, were prepared Thus, reaction of bis[(4-chloromethyl)phenyl] ether with benzyloxyurea gave bis[[4-(N-carbamoyl-N-benzyloxyamino)methyl]phenyl] ether, hydrogenolysis of which followed by cyclocondensation with Et chloroformate gave bis[4-[(3,5-dioxo-1,2,4-oxadiazolidin-2-yl)methyl]phenyl] ether. 1,3-Bis[4-[(3,5-dioxo-1,2,4-oxadiazolidin-2-yl)methyl]phenoxy]benzene at 30 mg/day orally effected a 53% decrease in blood sugar in mice.

ACCESSION NUMBER: 1995:570785 CAPLUS
DOCUMENT NUMBER: 122:314554
TITLE: Preparation of bisoxadiazolidine derivatives as hypoglycemics
INVENTOR(S): Niigata, Kunihiro; Takahashi, Takumi; Maruyama, Tatsuya; Suzuki, Takayuki; Maeno, Kyoichi; Onda, Kenichi; Kontani, Toru; Noshiro, Osamu; Koike, Reiko; et al.
PATENT ASSIGNEE(S): Yamanouchi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 137 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9425448	A1	19941110	WO 1994-JP696	19940426
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KG, KR, KZ, LK, LV, MD, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2160989	AA	19941110	CA 1994-2160989	19940426
AU 9465823	A1	19941121	AU 1994-65823	19940426
AU 680496	B2	19970731		
EP 696585	A1	19960214	EP 1994-913821	19940426
EP 696585	B1	19981216		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
CN 1122133	A	19960508	CN 1994-191963	19940426
CN 1045005	B	19990908		
HU 73431	A2	19960729	HU 1995-3090	19940426
JP 2820535	B2	19981105	JP 1994-524101	19940426
AT 174593	E	19990115	AT 1994-913821	19940426
ES 2129123	T3	19990601	ES 1994-913821	19940426

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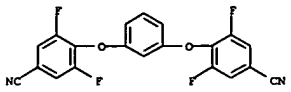
RU 2135487	C1	19990827	RU 1995-122077	19940426
TW 401418	B	20000811	TW 1994-83103862	19940428
US 5643931	A	19970701	US 1995-537907	19951026
PRIORITY APPLN. INFO.:			JP 1993-127898 A	19930430
			JP 1993-350209 A	19931229
			WO 1994-JP696 W	19940426

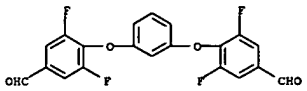
OTHER SOURCE(S): MARPAT 122:314554

IT 163301-21-1P 163301-22-2P 163301-37-9P 163302-12-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of bisoxadiazolidine derivs. as hypoglycemics)

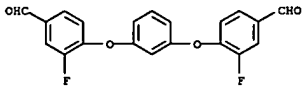
RN 163301-21-1 CAPLUS
CN Benzonitrile, 4,4'-[1,3-phenylenebis(oxy)]bis[3,5-difluoro- (9CI) (CA INDEX NAME)



RN 163301-22-2 CAPLUS
CN Benzaldehyde, 4,4'-[1,3-phenylenebis(oxy)]bis[3,5-difluoro- (9CI) (CA INDEX NAME)

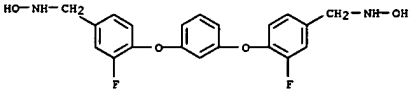


RN 163301-37-9 CAPLUS
CN Benzaldehyde, 4,4'-[1,3-phenylenebis(oxy)]bis[3-fluoro- (9CI) (CA INDEX NAME)



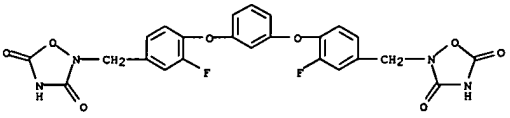
RN 163302-12-3 CAPLUS
CN Benzenemethanamine, 4,4'-[1,3-phenylenebis(oxy)]bis[3-fluoro-N-hydroxy- (9CI) (CA INDEX NAME)

L52 ANSWER 35 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

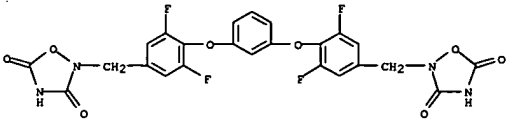


IT 163300-89-8P 163300-97-8P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of bisoxadiazolidine derivs. as hypoglycemics)

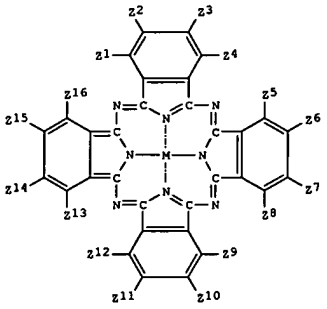
RN 163300-89-8 CAPLUS
CN 1,2,4-Oxadiazolidine-3,5-dione, 2,2'-[1,3-phenylenebis[oxy(3-fluoro-4,1-phenylene)methylene]]bis- (9CI) (CA INDEX NAME)



RN 163300-97-8 CAPLUS
CN 1,2,4-Oxadiazolidine-3,5-dione, 2,2'-[1,3-phenylenebis[oxy(3,5-difluoro-4,1-phenylene)methylene]]bis- (9CI) (CA INDEX NAME)



L52 ANSWER 36 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The mixts. contain a transparent resin [e.g., polycarbonate, poly(Me methacrylate), PVC, or poly(ethylene terephthalate)], a near-IR-absorbing phthalocyanine compound I (Z1-16 = SR1, OR2, H, halo, NHY; ≥1 of Z1-16 = NHY; R1-2 = Ph, substituted Ph, C1-20 alkyl; Y = Ph, substituted Ph, C1-8 alkyl; M = VO, Zn, Cu, SnCl2, Co, etc.), and, optionally, carbon black. Replacing part of the I with carbon black does not decrease the heat-radiation-shielding ability of the mixts. The mixts. are useful as moldings which transmit visible light while blocking near-IR radiation (i.e., they absorb the heat from sunlight).

ACCESSION NUMBER: 1995:550904 CAPLUS
DOCUMENT NUMBER: 122:316019
TITLE: Heat-radiation-shielding mixtures of polymers and near-IR-absorbing phthalocyanine compounds
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 607031	A1	19940720	EP 1994-300205	19940112
EP 607031	B1	19991006		
R: BE, DE, ES, FR, GB, IT, NL				
JP 06264050	A2	19940920	JP 1993-352128	19931229
ES 2136700	T3	19991201	ES 1994-300205	19940112

PRIORITY APPLN. INFO.: JP 1993-4326 A 19930113

OTHER SOURCE(S): MARPAT 122:316019
IT 163464-84-4
RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(near-IR absorber; heat-radiation-shielding compns. containing polymers
and)
RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)-
(9CI) (CA INDEX NAME)

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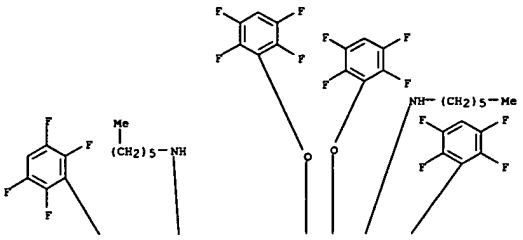

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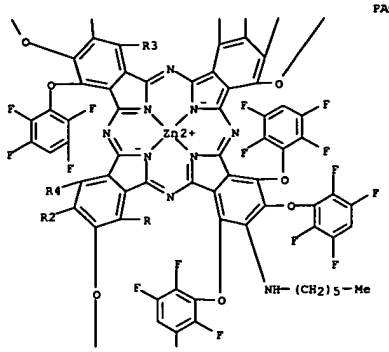

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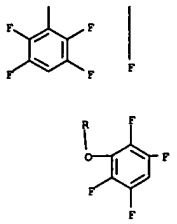

Me—(CH2)5—NH—R2

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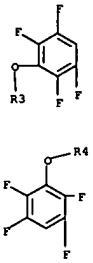
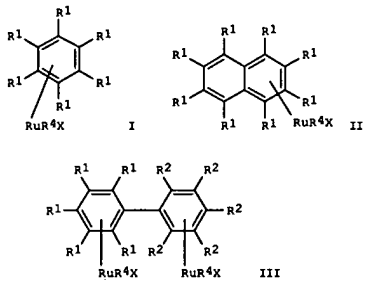


GI



AB Novel ruthenium pi-arene complexes, I-III'(R1, R2 = independently H, halo, R3; R3 = inert monovalent radical having Hammett constant > -0.35 and < -0.12; R4 = cyclopentadienyl, pentamethylcyclopentadienyl; X = perfluoroalkylsulfonate, hexafluorophosphate), in which the arene ring has 3 or more halogen atoms bound to it are disclosed. These compds. are reacted with phenoxides and thiophenoxides to form ruthenium pi-arene complexes of polyfunctional aromatic ethers and thioethers which are useful as monomers and crosslinking agents. Thus, reaction of 1,3,5-trichlorobenzene with [Cp*Ru(MeCN)][SO3CF3] (Cp* = pentamethylcyclopentadienyl) in THF gave [Cp*Ru(1,3,5-trichlorobenzene)][SO3CF3], which on treatment with potassium p-aminophenoxide in MeCN gave [Cp*Ru(1,3,5-tris(4-aminophenoxy)benzene)][SO3CF3].
ACCESSION NUMBER: 1995:403412 CAPLUS
DOCUMENT NUMBER: 123:9696
TITLE: Preparation and reactions of polyhaloaromatic ruthenium complexes
INVENTOR(S): Dembek, Alexa A.
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

L52 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

US 5386044 A 19950131 US 1993-159152 19931130
PRIORITY APPLN. INFO.: US 1993-159152 19931130

OTHER SOURCE(S): MARPAT 123:9696
IT 163709-89-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 163709-89-5 CAPLUS
CN Ruthenium(1+), [(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl][(1,2,3,4,5,6-η)-1,3,5-tris(4-fluorophenoxy)benzene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 163709-88-4
CMF C34 H30 F3 O3 Ru
CCI CCS

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L52 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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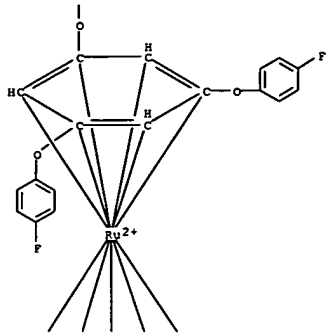

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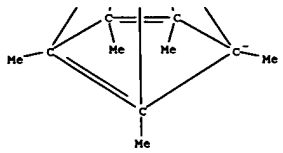
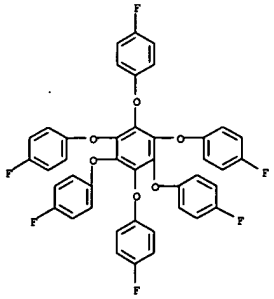


CM 2

CRN 37181-39-8
CMF C F3 O3 S

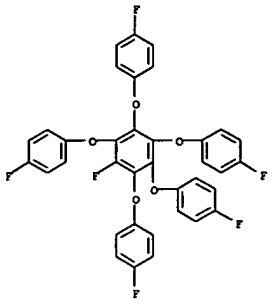
L52 ANSWER 37 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L52 ANSWER 38 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB Hexafluorobenzene reacts readily with a variety of trimethylsilyl ethers ROSiMe3 (R = CF3CH2, FCH2CH2, H(CF2)nCH2 (n = 2, 4), CF3(CF2)6CH2, CF3(CF2)5CH2CH2, Me3SiOCH2CH2, C6F5OCH2CH2, C6H5, 4-FC6H4) to give from mono- to hexapolyfluoroalkoxy- and polyfluoroaryloxy-benzenes. The structure of C6(OCH2CF3)6 has been confirmed by single-crystal X-ray anal.
The perfluorinated ether C6F5OCF2CF3 may be synthesized from C6F5OCH2CF3 by chlorination and subsequent fluorination with SbF3 /SbCl5. The chlorination of 5,6,7,8-tetrafluoro-1,4-benzodioxane is also discussed.
ACCESSION NUMBER: 1995:57102 CAPLUS
DOCUMENT NUMBER: 122:31037
TITLE: Reaction of hexafluorobenzene with trimethylsilyl ethers
AUTHOR(S): Zhang, Y. F.; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Journal of Fluorine Chemistry (1994), 68(3), 287-92
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:31037
IT **159752-90-6 159752-93-9 159752-94-0**
RL: PRP (Properties)
(reaction of hexafluorobenzene with trimethylsilyl ethers)
RN 159752-90-6 CAPLUS
CN Benzene, hexakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)

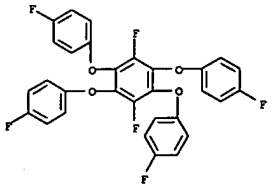


RN 159752-93-9 CAPLUS
CN Benzene, fluoropentakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)

L52 ANSWER 38 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

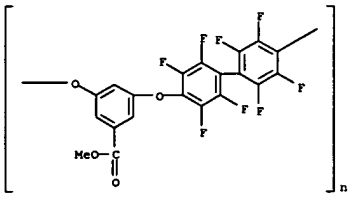


RN 159752-94-0 CAPLUS
CN Benzene, 1,4-difluoro-2,3,5,6-tetrakis(4-fluorophenoxy)- (9CI) (CA INDEX NAME)



L52 ANSWER 39 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB Six F-containing poly(arylene ethers) were prepared by polymerizing decafluorobiphenyl with 4,4'-(hexafluoroisopropylidene)diphenol (bisphenol AF), 9,9-bis(4-hydroxyphenyl)fluorene, 1,1-bis(4-hydroxyphenyl)-1-phenylethane (bisphenol AP), phenolphthalein, fluorescein, and Me 3,5-dihydroxybenzoate. The polymers exhibited low dielec. consts. and moisture absorption and excellent thermal and mech. properties and may be useful in electronic applications.

ACCESSION NUMBER: 1994:484111 CAPLUS
DOCUMENT NUMBER: 121:84111
TITLE: Synthesis and characterization of new poly(arylene ethers) with low dielectric constant
AUTHOR(S): Mercer, Frank W.; Coffin, Chris; Duff, David W.
CORPORATE SOURCE: Raychem Corp., Menlo Park, CA, 94025-1164, USA
SOURCE: ACS Symposium Series (1994), 537(Polymer for Microelectronics), 546-53
CODEN: ACSMC8; ISSN: 0097-6156
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 156589-15-0P, Decafluorobiphenyl-methyl 3,5-dihydroxybenzoate copolymer, SRU
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)
RN 156589-15-0 CAPLUS
CN Poly[oxy[5-(methoxycarbonyl)-1,3-phenylene]oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)



L52 ANSWER 40 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
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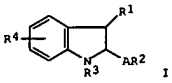


AB Title compds. I [A = C1-12 alkylene, C2-12 alkenylene, C3-8 cycloalkylene;
R1 = H, C1-6 alkylthio, (substituted) PhS, (substituted) phenyl-C1-6 alkylthio, halo, 2-, 3-, 4-pyridylthio, 2-, 3-thienylthio, 2-thiazolylthio, etc.; R2 = R5CONOH wherein R5 = C1-6 alkyl, substituted ureido, etc., R5NR6CO, wherein R6 = H, C1-6 alkyl, etc.; R3 = phenyl-C1-6-alkyl, hetero-C1-6-alkyl, etc.; R4 = C1-6 alkyl, C1-12 alkoxy, (substituted) Ph, (substituted) PhO, (substituted) phenylalkyloxy, (substituted) naphthyloxy, (substituted) heteroarylalkyloxy] or a salt, ester, or amide, are prepared To I (A = Me2CCH2, R1 = Me3CS, R2 = HO2C, R3 = 4-ClC6H4CH2, R4 = 5-Me2CH) in C6H6 were added Et3N and N3PO(OPh)2, the mixture was refluxed for 1 h, and HONHMe.HCl in Et3N was added to give after workup I (A = Me2CCH2, R1 = Me3CS, R2 = MeN(OH)CONH, R3 = 4-ClC6H4CH2, R4 = 5-Me2CH) (II). II inhibited LTB4 biosynthesis in vitro in human whole blood and human polymorphonuclear leukocytes with IC50 of 1.3 and 0.15 μM, resp.

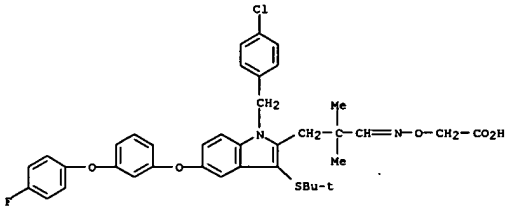
ACCESSION NUMBER: 1992:407801 CAPLUS
DOCUMENT NUMBER: 117:7801
TITLE: Preparation of indole derivatives which inhibit leukotriene biosynthesis
INVENTOR(S): Brooks, Dee W.; Carter, George W.; Dellaria, Joseph F.; Maki, Robert G.; Rodriques, Karen E.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 101 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9203132	A1	19920305	WO 1991-US5621	19910807
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5095031	A	19920310	US 1990-570248	19900820
CA 2090006	AA	19920221	CA 1991-2090006	19910807
EP 544819	A1	19930609	EP 1991-917405	19910807
EP 544819	B1	19951206		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06500557	T2	19940120	JP 1991-516031	19910807
AT 131051	E	19951215	AT 1991-917405	19910807
ES 2083595	T3	19960416	ES 1991-917405	19910807
US 5459150	A	19951017	US 1993-969294	19930216

L52 ANSWER 40 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PRIORITY APPLN. INFO.:	US 1990-570248	A2 19900820
	WO 1991-US5621	W 19910807

OTHER SOURCE(S): MARPAT 117:7801
IT 141863-03-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as leukotriene biosynthesis inhibitor)
RN 141863-03-8 CAPLUS
CN Acetic acid, [[[3-[1-[(4-chlorophenyl)methyl]-3-[(1,1-dimethylethyl)thio]-5-[3-(4-fluorophenoxy)phenoxy]-1H-indol-2-yl]-2,2-dimethylpropylidene]amino]oxy]- (9CI) (CA INDEX NAME)



L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
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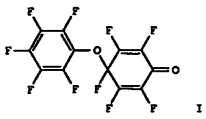


I

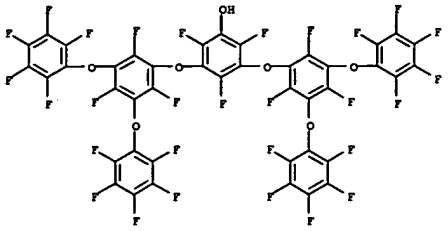
AB Reaction of perfluorinated cyclohexadienone I with C6F5ONa in MeCN or with PhOH or 3,5-(C6F5O)2C6F3OH in MeCN containing K2CO3 at 20° gave 71-86% products of substitution of I in the 3- and 5-positions of the diene ring, which isomerize upon heating. Reaction of I with phenols and K2CO3 in MeCN at 70° gave products in which 4 F atoms at positions 3 and 5 in the diene ring and 3 and 5 in the aromatic ring were substituted. Reduction with Na2S2O4 of the tetrakis(aryloxy)dienones thus obtained gave 63-94% fluorinated 3,5-bis(aryloxy)phenols, which reacted with C6F6 to give 1,3,5-trisubstituted fluorinated polyphenyl ethers.

ACCESSION NUMBER: 1992:235168 CAPLUS
DOCUMENT NUMBER: 116:235168
TITLE: Nucleophilic substitution of a fluorine atom in perfluoro(phenoxycyclohexadienones). Synthesis of 1,3,5-trisubstituted fluorine-containing polyphenyl ethers
AUTHOR(S): Kovtonyuk, V. N.; Kobrina, L. S.
CORPORATE SOURCE: Novosib. Inst. Org. Khim., Novosibirsk, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1991), 27(11), 2289-97
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 116:235168

IT **141215-99-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and etherification of, with hexafluorobenzene)

RN 141215-99-8 CAPLUS
CN Phenol, 2,4,6-trifluoro-3,5-bis[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **141215-97-6P 141228-91-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)

RN 141215-97-6 CAPLUS
CN 2,5-Cyclohexadien-1-one, 2,4,6-trifluoro-3,5-bis[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]-4-[2,4,6-trifluoro-3,5-bis[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)

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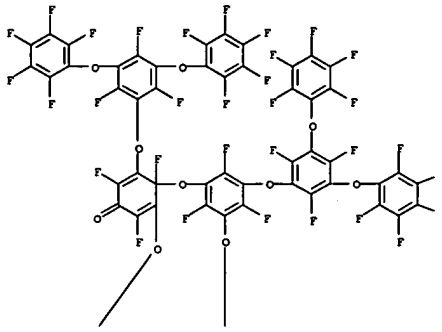

L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
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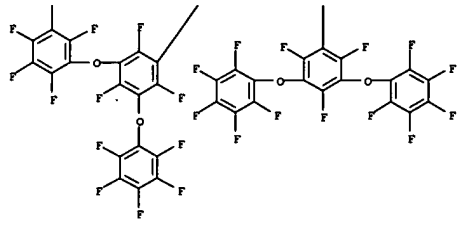
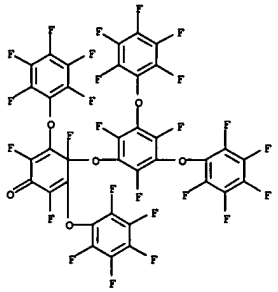


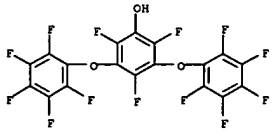
RN 141228-91-3 CAPLUS
CN 2,5-Cyclohexadien-1-one, 2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)-4-[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **141215-95-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and substitution reaction of, with perfluoro(phenoxycyclohexadienone))

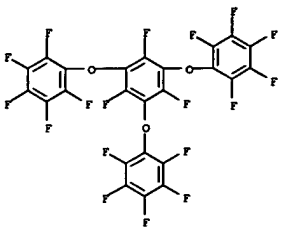
RN 141215-95-4 CAPLUS
CN Phenol, 2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)- (9CI) (CA INDEX NAME)



IT **141216-00-4P 141216-01-5P 141228-90-2P**
141228-92-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 141216-00-4 CAPLUS
CN Benzene, 1,3,5-trifluoro-2,4,6-tris(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 141216-01-5 CAPLUS
CN Benzene, 1,3,5-trifluoro-2-(pentafluorophenoxy)-4,6-bis[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

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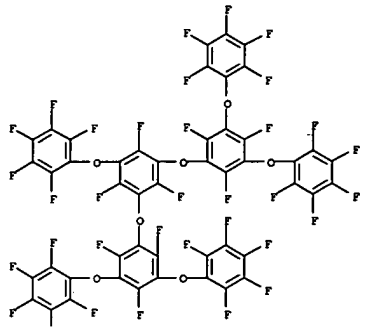

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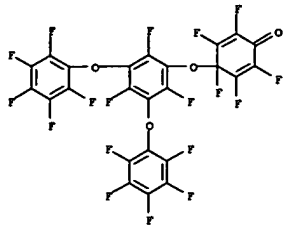
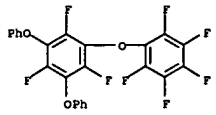
L52 ANSWER 41 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 141228-90-2 CAPLUS
CN 2,5-Cyclohexadien-1-one, 2,3,4,5,6-pentafluoro-4-[2,4,6-trifluoro-3,5-bis(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



RN 141228-92-4 CAPLUS
CN Benzene, pentafluoro(2,4,6-trifluoro-3,5-diphenoxyphenoxy)- (9CI) (CA INDEX NAME)



L52 ANSWER 42 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB Paddy fungicides, herbicides or plant-growth regulators are formulated with solid carrier and an oil. The oil (sp. gr. ≤1; b.p. >150°) is water-immiscible and miscible with the active ingredient. Granules comprised Me (E)-2-[2-[3-(pyrimidin-2-yloxy)phenoxy]phenyl]-3-methoxyacrylate 1.0, surfactant B246 0.05, soybean oil 7.5, and Na sesquicarbonate to 100% weight/weight In pot expts., the granules (3 Kg active ingredient/ha) prevented artificial Pyricularia oryzae infection of rice.

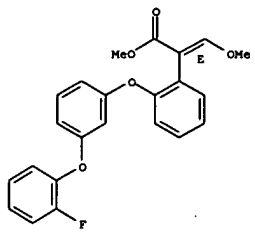
ACCESSION NUMBER: 1991:487516 CAPLUS
DOCUMENT NUMBER: 115:87516
TITLE: Agrochemical compositions for paddy
INVENTOR(S): Warrington, Roger Paul; Ramsay, Guy; Bird, Neal Richard
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 415569	A2	19910306	EP 1990-308478		19900801
EP 415569	A3	19921028			
EP 415569	B1	19980701			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE					
AT 167778	E	19980715	AT 1990-308478		19900801
ES 2117626	T3	19980816	ES 1990-308478		19900801
AU 9060220	A1	19910307	AU 1990-60220		19900806
AU 642151	B2	19931014			
IL 95305	A1	19941128	IL 1990-95305		19900806
HU 57536	A2	19911230	HU 1990-4960		19900810
BR 9003989	A	19910903	BR 1990-3989		19900813
CA 2023547	AA	19910302	CA 1990-2023547		19900817
JP 03193705	A2	19910823	JP 1990-228511		19900831
JP 2880778	B2	19990412			
CN 1049771	A	19910313	CN 1990-107234		19900901
CN 1044070	B	19990714			
US 5466693	A	19951114	US 1993-125702		19930923
PRIORITY APPLN. INFO.:			GB 1989-19833	A	19890901
			GB 1990-7995	A	19900409
			GB 1990-16783		19900731
			US 1990-570588	B1	19900821

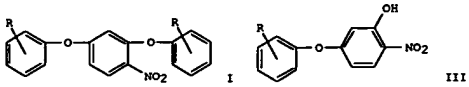
OTHER SOURCE(S): MARPAT 115:87516
IT **122281-57-6**
RL: PROC (Process)
(fungicidal formulation of, solid, for rice paddy)
RN 122281-57-6 CAPLUS
CN Benzeneacetic acid, 2-[3-(2-fluorophenoxy)phenoxy]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L52 ANSWER 42 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



GI



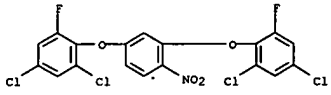
I III

AB 3,4-Dinitrochlorobenzene reacted with 2,4-dichlorophenol and K2CO3 in Me2NCHO to give 2,4-bis(2,4-dichlorophenoxy)nitrobenzene (I, R = 2,4-dichloro). 3-Nitrophenol reacted with 3,4-Cl2C6H3CF3 to yield 2-chloro-4-trifluoromethylphenyl 3-nitrophenyl ether, which was nitrated to give 2-chloro-4-(trifluoromethyl)phenyl 3,4-dinitrophenyl ether (III). I (R = 2,4-dichloro)reacted with KOH to give 2,4-dichlorophenyl 3-hydroxy-4-nitrophenyl ether (III, R = 2,4-dichloro). Similarly prepared were I (R = H, 2,4-dichloro-6-fluoro. 2- or 3-chloro, 2-chloro-4-nitro, 2-methyl-4-chloro, 2-methyl-4,6-dichloro, 2,4,6-trichloro, or 2-chloro-4-trifluoromethyl) and III (R = H, 2- or 3-chloro, 3-trifluoromethyl, 4-methylthio, 2-chloro-3-trifluoromethyl, 2-chloro-4-nitro, 4-chloro-2-Me, 2,4-dichloro-6-fluoro, 2,4-dichloro-6-Me, or 2,4,6-trichloro).

ACCESSION NUMBER: 1991:448952 CAPLUS
DOCUMENT NUMBER: 115:48952
TITLE: Synthesis of intermediates related to diphenyl ether herbicides
AUTHOR(S): Yoshimoto, Takeo; Igarashi, Keiichi; Fujita, Takashi; Harayama, Takeo
CORPORATE SOURCE: Life Sci. Bus. Dev. Dep., Mitsui-Toatsu Chem. Inc., Tokyo, 100, Japan
SOURCE: Nippon Noyaku Gakkaishi (1990), 15(3), 341-52
CODEN: NNGADV; ISSN: 0385-1559
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 115:48952

IT **60793-43-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 60793-43-3 CAPLUS
CN Benzene, 2,4-bis(2,4-dichloro-6-fluorophenoxy)-1-nitro- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB The title compds. [I; A, B, E = H, halo, OH, alkyl, alkoxy, haloalkyl, etc.; K = O, S; X = O, S, SO, SO2, CO, (un)substituted NH, etc.; Z = (un)substituted aryl, heterocyclyl] are prepared as fungicides. A mixture of Me (E)-2-[2-(3-hydroxyphenoxy)phenyl]-3-methoxypropenoate (preparation given), PhCH2Br, K2CO3 and dry DMF was stirred 3 h to give Me (E)-2-[2-[3-(benzyloxy)phenoxy]phenyl]-3-methoxypropenoate (II). At 0.05% I totally controlled Puccinia recondita on wheat, Venturia inaequalis on apple, Pyricularia oryzae on rice, and other fungi.

ACCESSION NUMBER: 1989:514869 CAPLUS
DOCUMENT NUMBER: 111:114869
TITLE: Preparation of phenylpropenoates as fungicides
INVENTOR(S): Anthony, Vivienne Margaret; Heaney, Stephen Paul; Beautement, Kevin; Clough, John Martin; Crowley, Patrick Jelf; Godfrey, Christopher Richard Ayles; De Fraine, Paul John; Buckley, Alan John; Hutchings, Michael Gordon; Ferguson, Ian
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 119 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 307103	A2	19890315	EP 1988-307746	19880822
EP 307103	A3	19910417		
EP 307103	B1	19940921		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
GB 2210041	A1	19890601	GB 1988-19878	19880822
GB 2210041	B2	19920701		
ES 2059527	T3	19941116	ES 1988-307746	19880822
IL 87573	A1	19930114	IL 1988-87573	19880826
AU 8821665	A1	19890316	AU 1988-21665	19880830
AU 611934	B2	19910627		
ZA 8806490	A	19890426	ZA 1988-6490	19880831
HU 47527	A2	19890328	HU 1988-4607	19880907
HU 202820	B	19910429		
DD 287401	A5	19910228	DD 1988-319606	19880907
PL 158290	B1	19920831	PL 1988-274572	19880908
RU 2014320	C1	19940615	RU 1988-4356509	19880908
DK 8805040	A	19890310	DK 1988-5040	19880909
BR 8804672	A	19890418	BR 1988-4672	19880909
CN 1032782	A	19890510	CN 1988-107270	19880909
CN 1021009	B	19930602		
JP 01121243	A2	19890512	JP 1988-224814	19880909
JP 2858756	B2	19990217		
CA 1309401	A1	19921027	CA 1988-577060	19880909
US 5334748	A	19940802	US 1988-242760	19880909
KR 127749	B1	19980402	KR 1988-11630	19880909
RU 2026282	C1	19950109	RU 1989-4742419	19891121
RU 2014321	C1	19940615	RU 1990-4743256	19900307
SU 1836328	A3	19930823	SU 1990-4743319	19900312
GB 2241236	A1	19910828	GB 1991-5678	19910318
GB 2241236	B2	19920708		

GB 2241237	A1	19910828	GB 1991-5679	19910318
GB 2241237	B2	19920708		
GB 2241238	A1	19910828	GB 1991-5680	19910318
GB 2241238	B2	19920708		
AU 9173806	A1	19910711	AU 1991-73806	19910325
AU 632207	B2	19921217		
RU 2017721	C1	19940815	RU 1991-5010110	19911120
LV 10242	B	19950420	LV 1992-490	19921224
LT 3673	B	19960125	LT 1993-1427	19931028
US 5468857	A	19951121	US 1994-191163	19940203

PRIORITY APPLN. INFO.:

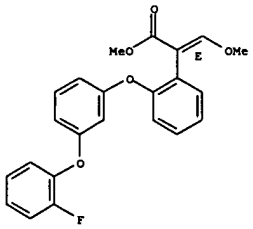
GB 1987-21221	A	19870909
GB 1987-21706	A	19870915
GB 1988-1485	A	19880122
GB 1988-6317	A	19880317
GB 1988-14734	A	19880621
GB 1988-19878	A	19880822
US 1988-242760	A3	19880909

OTHER SOURCE(S): CASREACT 111:114869; MARPAT 111:114869

IT **122281-57-6P 122281-58-7P 122297-49-8P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as fungicide)

RN 122281-57-6 CAPLUS
CN Benzeneacetic acid, 2-[3-(2-fluorophenoxy)phenoxy]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

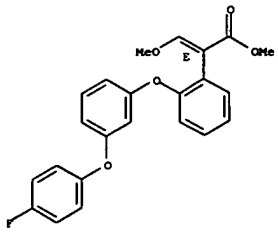
Double bond geometry as shown.



RN 122281-58-7 CAPLUS
CN Benzeneacetic acid, 2-[3-(4-fluorophenoxy)phenoxy]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

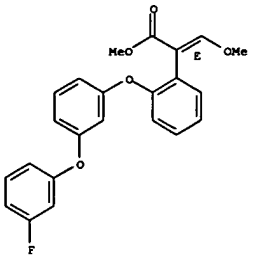
Double bond geometry as shown.

L52 ANSWER 44 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

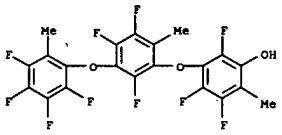


RN 122297-49-8 CAPLUS
CN Benzeneacetic acid, 2-[3-(3-fluorophenoxy)phenoxy]-α-(methoxymethylene)-, methyl ester, (E)- (9CI) (CA INDEX NAME)

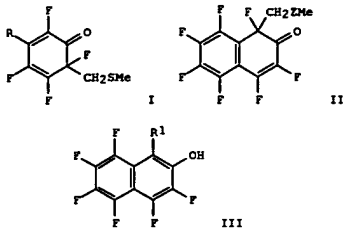
Double bond geometry as shown.



L52 ANSWER 45 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 113397-96-9 CAPLUS
CN Phenol, 2,4,5-trifluoro-6-methyl-3-[2,4,5-trifluoro-6-methyl-3-(2,3,4,5-tetrafluoro-6-methylphenoxy)phenoxy]- (9CI) (CA INDEX NAME)



L52 ANSWER 45 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB C6F5OH reacted with DMSO-DCC-H3PO4 below room temperature to give C6F5OCH2SMe and the [2,3]-rearrangement products I (R = F, C6F5O). Under similar conditions, 2,3,5,6-F4C6HOH and perfluoro-2-naphthol gave similar ethers and rearrangement products (e.g., dihydronaphthalenone II; Z = S). Reaction of polyfluoroarenols with DMSO-(CF3CO)2O at low temps. followed by deprotonation with Et3N resulted in more efficient rearrangement reactions. 4-Bromo-3,5,6-trifluoro-2-pyridinol gave the corresponding ether and both C and N rearrangement products; 2,4,5,6-tetrafluoro-3-pyridinol gave products resulting from the overall replacement of the 2-F by CHO and by CH(SMe)2; both 2,5,6-trifluoro-4-pyrimidinol and 5-fluoro-4,6-dimethoxy-2-pyrimidinol gave simple rearrangement products. NaBH4 reduction and Raney Ni desulfurization of some of the rearranged compds. gave phenolic products. Reaction of sulfone II (Z = SO2) with DBU effected overall replacement of the 1-F in the starting perfluoro-2-naphthol to give hydroxy aldehyde derivs. III [R1 = CHO, CH(SO2Me)2].

ACCESSION NUMBER: 1988:131238 CAPLUS
DOCUMENT NUMBER: 108:131238
TITLE: Reactions of polyfluoroarenols and -heteroarenols with activated dimethyl sulfoxide. Facile [2,3]-sigmatropic rearrangement reactions giving dearomatized products
AUTHOR(S): Brooke, Gerald M.; Ferguson, J. A. K. Jamie
CORPORATE SOURCE: Dep. Chem., Science Lab., Durham, DH1 3LE, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1987), (9), 2091-7
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:131238
IT 113397-96-9P

L52 ANSWER 46 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
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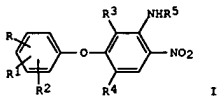


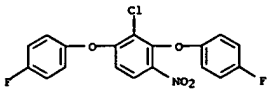
AB Herbicidal (no data) nitrophenoxyanilines I [R-R2 = H, alkyl, alkenyl, alkynyl, alkoxy, cyano, F3C, MeCO, halo; R3 = H, halo, Me; R4 = H, halo; R5 = H, alkenyl, alkynyl, amino, (un)substituted alkyl, PhCH2] were prepared
Thus, 2,3,4-Cl3C6H2NO2 was treated with PhOH in the presence of Bu4N+ HSO4- to give 97.4% 3,2,4-Cl(PhO)2C6H2NO2. This was treated with NH3 in (CH2OCH2CH2OH)2 at 165° 6h to give 95.8% I (R = R1 = R2 = R4 = R5 = H, R3 = Cl).

ACCESSION NUMBER: 1985:203708 CAPLUS
DOCUMENT NUMBER: 102:203708
TITLE: Diphenyl ethers
INVENTOR(S): Sehring, Richard; Buck, Wolfgang
PATENT ASSIGNEE(S): Celamerck G.m.b.H. und Co. K.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 27 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

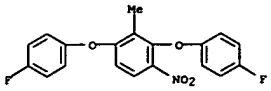
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 3209878	A1	19830929	DE 1982-3209878		19820318
EP 89517	A1	19830928	EP 1983-101949		19830228
EP 89517	B1	19860611			
R: AT, BE, CH, DE, FR, GB, IT, LI, NL					
AT 20340	E	19860615	AT 1983-101949		19830228
JP 58170736	A2	19831007	JP 1983-44033		19830315
JP 04080898	B4	19921221			
CA 1264763	A1	19900123	CA 1983-423736		19830316
PRIORITY APPLN. INFO.:			DE 1982-3209878	A	19820318
			EP 1983-101949	A	19830228

OTHER SOURCE(S): CASREACT 102:203708
IT 88483-48-1P 88483-51-6P 88483-66-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and aminolysis of)
RN 88483-48-1 CAPLUS
CN Benzene, 2-chloro-1,3-bis(4-fluorophenoxy)-4-nitro- (9CI) (CA INDEX NAME)

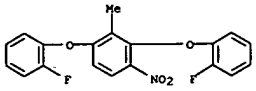
L52 ANSWER 46 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 88483-51-6 CAPLUS
CN Benzene, 1,3-bis(4-fluorophenoxy)-2-methyl-4-nitro- (9CI) (CA INDEX NAME)



RN 88483-66-3 CAPLUS
CN Benzene, 1,3-bis(2-fluorophenoxy)-2-methyl-4-nitro- (9CI) (CA INDEX NAME)



L52 ANSWER 47 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
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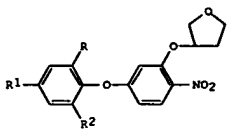


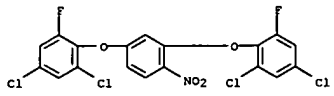
AB Tetrahydrofurans I (R, R2 = H, halogen; R1 = halogen, CF3) were prepared Thus, 3-tetrahydrofuranol was treated with 2,4-Cl(CF3)C6H3OC6H3(NO2)2-3,4 to give 65.6% I (R = Cl, R1 = NO2, R2 = H) which at 1 g/are post-emergence
gave total control of, e.g., Echinochloa crusgalli in rice.
ACCESSION NUMBER: 1982:6554 CAPLUS
DOCUMENT NUMBER: 96:6554
TITLE: Tetrahydrofuran derivatives and their use as herbicides
INVENTOR(S): Yoshimoto, Takeo; Toyama, Teruhiko; Igarashi, Keiichi; Ura, Masaaki; Enomoto, Yuji; Funakoshi, Yasunobu; Hojo, Yoshikata
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc. , Japan
SOURCE: Fr. Demande, 20 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2471979	A1	19810626	FR 1980-26654	19801216
FR 2471979	B1	19830812		
JP 56086179	A2	19810713	JP 1979-162711	19791217
JP 59051950	B4	19841217		
US 4308051	A	19811229	US 1980-216609	19801215
BR 8008236	A	19810707	BR 1980-8236	19801216
DE 3047629	A1	19810917	DE 1980-3047629	19801217
DE 3047629	C2	19890105		

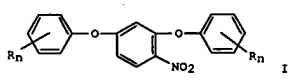
PRIORITY APPLN. INFO.: JP 1979-162711 A 19791217

OTHER SOURCE(S): CASREACT 96:6554
IT **60793-43-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxytetrahydrofuran)
RN 60793-43-3 CAPLUS
CN Benzene, 2,4-bis(2,4-dichloro-6-fluorophenoxy)-1-nitro- (9CI) (CA INDEX NAME)

L52 ANSWER 47 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L52 ANSWER 48 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI

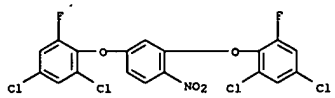


AB 2,4-Diphenoxynitrobenzenes I (R = halo, alkyl, CF3, NO2; n = 0-3) were prepared by treating RnC6H5-nOH (II) with 3,4-dinitrochlorobenzene (III) in
the presence of alkali. III is more readily available than 2,4-dichloronitrobenzene. Thus, a mixture of II (Rn = 2,4-Cl2) 35.9, III 20.3, and K2CO3 30.4 parts in DMF was heated at 70° for 2 hr and at 140° for 3 hr to give 90.3% I (Rn = 2,4-Cl2). Me2SO, sulfolane, or diglyme was also a good solvent, whereas ethylene glycol instead of DMF lowered the yield. Among 9 addnl. I prepared were I [Rn = H, 2,4-Me(Cl), 2,4-Cl(CF3), and 2,4,6-Cl3.
ACCESSION NUMBER: 1976:559665 CAPLUS
DOCUMENT NUMBER: 85:159665
TITLE: 2,4-Diphenoxynitrobenzenes
INVENTOR(S): Yoshimoto, Takeo; Harayama, Takeo; Ura, Masaaki
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

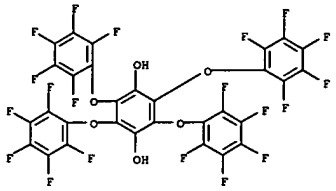
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51088931	A2	19760804	JP 1975-13958	19750204
JP 55030702	B4	19800813		

PRIORITY APPLN. INFO.: JP 1975-13958 A 19750204

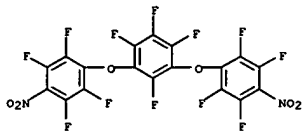
IT **60793-43-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 60793-43-3 CAPLUS
CN Benzene, 2,4-bis(2,4-dichloro-6-fluorophenoxy)-1-nitro- (9CI) (CA INDEX NAME)



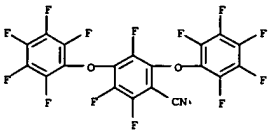
L52 ANSWER 49 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl
ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).
ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts
Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT 53279-71-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53279-71-3 CAPLUS
CN 1,4-Benzenediol, 2,3,5,6-tetrakis(pentafluorophenoxy)- (9CI) (CA INDEX NAME)



L52 ANSWER 50 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The reaction of (C6Cl5)2O with KF in an autoclave did not give the expected (C6F5)2O; only C6F6, C6F5Cl, C6F4Cl2, C6F3Cl3, an d C6F2Cl4 were obtained. The same products were obtained from C6Cl6. The reaction of C6F5NO2 with 2,3,5,6,4-F4XC6OK (X is Me, H, Br, CF3, NO2) gave 46-80% 2,3,5,6,4-F4XC6OC6(NO2)-F4-4,2,3,5,6 which were reduced to the corresponding amino-derivs. The amino derivs. were aminated to diamino ethers. The oxidation of 4,4'-diaminooctafluoridiphenyl ether (I) with CF3-CO2 h gave 4,4'-dinitrooctafluorodiphenyl ether (II), which was reacted with NH3(g) to the 3,3'-diamino analog (III) of II. The reduction of
III gave 3,3',4,4'-tetraaminohexafluorodiphenyl ether.
4-Bromononafluorodiphenyl ether or 4,4'-dibromooctafluorodi-phenyl ether were also prepared from 4-aminononafluorodiphenyl or I, resp., via the San
dmeyer reaction.
ACCESSION NUMBER: 1970:110946 CAPLUS
DOCUMENT NUMBER: 72:110946
TITLE: Aromatic fluoro derivatives. XXXVIII. Derivatives of
polyfluorodiphenyl ether
AUTHOR(S): Kobrina, L. S.; Furin, G. G.; Yakobson, G. G.
CORPORATE SOURCE: Novosibirsk. Inst. Org. Khim., Novosibirsk, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1970), 6(2), 340-5
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian
IT 28096-26-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 28096-26-6 CAPLUS
CN Benzene, 1,2,3,5-tetrafluoro-4,6-bis(2,3,5,6-tetrafluoro-4-nitrophenoxy)- (8CI) (CA INDEX NAME)

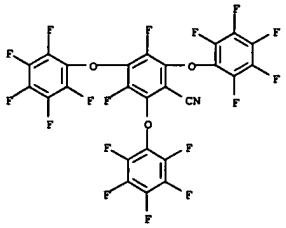


L52 ANSWER 51 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB NaOC6F5 reacted with C6F5CN in Me2CO to give 4-cyanononafluorodiphenyl ether (I), while in AcNMe2 solvent, isomeric and polysubstituted products accompanied the formation of I. C6F5CN is more reactive than C6F5CF3 toward NaOC6F5, which reacts with p-CF3C6F4CN to give 2,6-bis(pentafluorophenoxy)-4-trifluoromethyldifluorobenzonitrile. The observations suggest that a CN substituent is a potent activator for ortho
and para nucleophilic substitution reactions on fluorinated aromatic compds.
ACCESSION NUMBER: 1968:104689 CAPLUS
DOCUMENT NUMBER: 68:104689
TITLE: Reactions of fluoroaromatic nitriles with sodium pentafluorophenolate
AUTHOR(S): De Pasquale, Ralph J.; Tamborski, Christ
CORPORATE SOURCE: Air Force Mater. Lab., Wright-Patterson Air Force Base, OH, USA
SOURCE: Journal of Organic Chemistry (1968), 33(4), 1658-61
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 15963-72-1P 16031-36-0P 16065-60-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15963-72-1 CAPLUS
CN Benzonitrile, 2,3,5-trifluoro-4,6-bis(pentafluorophenoxy)- (8CI, 9CI) (CA
INDEX NAME)

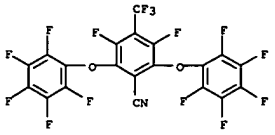


RN 16031-36-0 CAPLUS
CN Benzonitrile, 3,5-difluoro-2,4,6-tris(pentafluorophenoxy)- (8CI, 9CI) (CA
INDEX NAME)

L52 ANSWER 51 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 16065-60-4 CAPLUS
CN p-Tolunitrile, α,α,α,3,5-pentafluoro-2,6-bis(pentafluorophenoxy)- (8CI) (CA INDEX NAME)



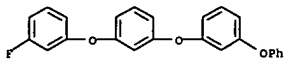
L52 ANSWER 52 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN

AB A number of perfluorinated and partially fluorinated phenyl and polyphenyl ethers were synthesized, characterized for thermal stability, fire resistance, and viscosity, and compared with their H analogs to assess the potential use of this class of compds. as functional fluids. Without exception, polyfluorination and perfluorination lower thermal stability; the decrease in stability depends on the position and number of fluorine substituents. The autoignition temperature and fire resistance are not improved over the H analog, and viscosity is degraded. These data coupled with the comparatively high melting points do not suggest a bright future for this class of compds. as useful functional fluids. 6 references.

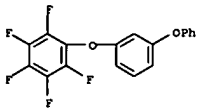
ACCESSION NUMBER: 1968:77890 CAPLUS
DOCUMENT NUMBER: 68:77890
TITLE: Synthesis, thermal stability, flammability, and viscosity of some partially fluorinated and perfluorinated aromatic and polyaromatic ethers
AUTHOR(S): Richardson, George Albert; Blake, Edward S.
CORPORATE SOURCE: Monsanto Res. Corp., Dayton, OH, USA
SOURCE: Industrial & Engineering Chemistry Product Research and Development (1968), 7(1), 17-21
CODEN: IEPRA6; ISSN: 0196-4321
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **5026-82-4P 17742-25-5P 17742-29-9P 17742-30-2P 17742-35-7P 17742-36-8P 17742-37-9P 17742-40-4P 17742-42-6P 19228-15-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 5026-82-4 CAPLUS
CN Benzene, 1-(m-fluorophenoxy)-3-(m-phenoxyphenoxy)- (7CI, 8CI) (CA INDEX NAME)

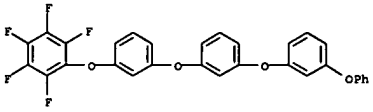


RN 17742-25-5 CAPLUS
CN Benzene, 1-(pentafluorophenoxy)-3-phenoxy- (8CI) (CA INDEX NAME)

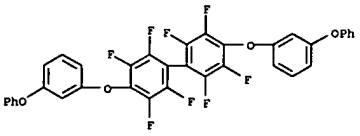


RN 17742-29-9 CAPLUS
CN Benzene, 1-(pentafluorophenoxy)-3-(m-phenoxyphenoxy)- (8CI) (CA INDEX

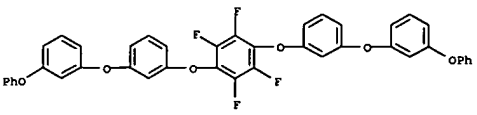
L52 ANSWER 52 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 17742-40-4 CAPLUS
CN Biphenyl, 2,2',3,3',5,5',6,6'-octafluoro-4,4'-bis(m-phenoxyphenoxy)- (8CI)
(CA INDEX NAME)

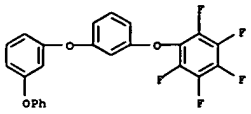


RN 17742-42-6 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[m-(m-phenoxyphenoxy)phenoxy]- (8CI) (CA INDEX NAME)

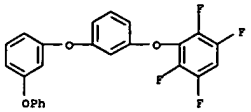


RN 19228-15-0 CAPLUS
CN Benzene, 1,2,4-trifluoro-3,5,6-tris(m-phenoxyphenoxy)- (7CI, 8CI) (CA INDEX NAME)

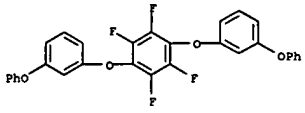
L52 ANSWER 52 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



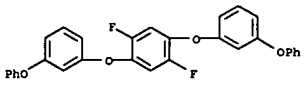
RN 17742-30-2 CAPLUS
CN Benzene, 1-(m-phenoxyphenoxy)-3-(2,3,5,6-tetrafluorophenoxy)- (8CI) (CA INDEX NAME)



RN 17742-35-7 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(m-phenoxyphenoxy)- (8CI) (CA INDEX NAME)

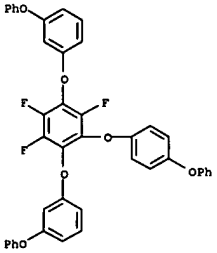


RN 17742-36-8 CAPLUS
CN Benzene, 1,4-difluoro-2,5-bis(m-phenoxyphenoxy)- (8CI) (CA INDEX NAME)

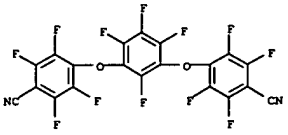


RN 17742-37-9 CAPLUS
CN Benzene, 1-[m-(pentafluorophenoxy)phenoxy]-3-(m-phenoxyphenoxy)- (8CI) (CA INDEX NAME)

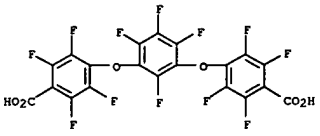
L52 ANSWER 52 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L52 ANSWER 53 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB 2,3,5,6-Tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]hydroquinones (I) and 2,4,5,6-tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]resorcinols (II) are prepared by the treatment of the compds. of the general formulas C6F5X, where X is CN, CF3, CONH2, and CO2H, with 2,3,5,6-tetrafluorohydroquinone di-Na salt and 2,4,5,6-tetrafluororesorcinol di-Li salt (III), resp. 19F-N.M.R. and ir data for the prepared I and II are given. III is treated with decafluorocyclohexene to give a mixture of 2,4,5,6-tetrafluoro-O,O'-bis(perfluoro-1-cyclohexen-1-yl)resorcinol and 2,4,5,6-tetrafluoro-O-(perfluoro-1-cyclohexen-1-yl)-O'-(perfluoro-2-cyclohexen-1-yl)resorcinol.
ACCESSION NUMBER: 1968:68571 CAPLUS
DOCUMENT NUMBER: 68:68571
TITLE: Reactions of perfluorophenolates with substituted pentafluorobenzenes and perfluorocyclohexene
AUTHOR(S): De Pasquale, Ralph J.; Tamborski, Christ
CORPORATE SOURCE: Wright-Patterson Air Force Base, Dayton, OH, USA
SOURCE: Journal of Organic Chemistry (1968), 33(2), 830-3
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **14796-04-4P 14901-49-6P 15038-90-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14796-04-4 CAPLUS
CN Benzonitrile, 4,4'-[(2,4,5,6-tetrafluoro-m-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

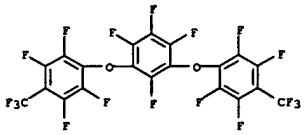


RN 14901-49-6 CAPLUS
CN Benzoic acid, 4,4'-[(2,4,5,6-tetrafluoro-m-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)



RN 15038-90-1 CAPLUS

L52 ANSWER 53 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Benzene, 1,2,3,5-tetrafluoro-4,6-bis[(α,α,α,2,3,5,6-heptafluoro-p-tolyl)oxy]- (8CI) (CA INDEX NAME)

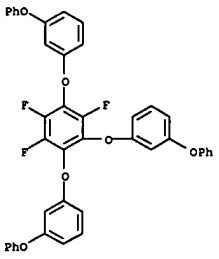


L52 ANSWER 54 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN
AB Polyphenyl ethers containing 4-7 Ph groups and in which one of the terminal groups is substituted by 1, 2, or 5 F atoms and by 2 m-phenoxyphenyl groups are heat-stable compds. with low m.ps. The mono-F compds. were prepared by condensation of an alkali phenoxide with bromofluorobenzene in the presence of Cu. The penta-F compds. were prepared by condensation of an alkali phenoxide with hexafluorobenzene. 1,3,4-Trifluorotris(m-phenoxyphenoxy)benzene was prepared by condensation of 3 equivalent of K m-phenoxyphenoxide with hexafluorobenzene. Thus, 58.4 g. m-(m-phenoxyphenoxy)phenol was mixed with 12.4 g. KOH and 35 ml. PhMe; water was removed with the PhMe by azeotropic distillation The dry phenoxide was dissolved in 100 ml. diglyme and added to a solution of 35 g. m-bromofluorobenzene in 100 ml. diglyme containing 0.5 g. Cu powder, over a period of 2.25 hrs. at 155°. The mixture was then stirred for 25.5 hrs. at 165° cooled, and filtered. The diglyme was distilled and the residue dissolved in ether. The ether solution was washed with acid, dilute alkali, and water, and distillation gave 44.5 g. (59.5% theory) of pure m(m-fluorophenoxy)phenyl m-phenoxyphenyl ether, decomposition 462° b0.15 212°, n25D 1.6094.
ACCESSION NUMBER: 1965:487872 CAPLUS
DOCUMENT NUMBER: 63:87872
ORIGINAL REFERENCE NO.: 63:16116f-g
TITLE: Heat-stable hydraulic fluids
PATENT ASSIGNEE(S): Monsanto Co.
SOURCE: 18 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

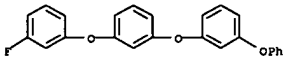
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6414074		19650608	NL	
PRIORITY APPLN. INFO.:			US	19631204

IT **5026-81-3**, Benzene, 1,2,4-trifnuoro-3,5,6-tris(m-phenoxyphenoxy)-
5026-82-4, Benzene, 1-(m-fluorophenoxy)-3-(m-phenoxyphenoxy)-
(as hydraulic fluid)
RN 5026-81-3 CAPLUS
CN Benzene, 1,3,4-trifluoro-2,5,6-tris(m-phenoxyphenoxy)- (8CI) (CA INDEX NAME)

L52 ANSWER 54 OF 54 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 5026-82-4 CAPLUS
CN Benzene, 1-(m-fluorophenoxy)-3-(m-phenoxyphenoxy)- (7CI, 8CI) (CA INDEX NAME)



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FULL ESTIMATED COST                                      271.71    3828.46

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DICTIONARY FILE UPDATES:  10 JAN 2005  HIGHEST RN 811411-12-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> FIL STNGUIDE
COST IN U.S. DOLLARS                                  SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                        1.29    3829.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)            SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                        0.00    -265.72

FILE 'STNGUIDE' ENTERED AT 20:30:20 ON 12 JAN 2005
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan  7, 2005 (20050107/UP).

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CA SUBSCRIBER PRICE                                        0.00    -265.72

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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 10 JAN 2005 HIGHEST RN 811411-12-8
DICTIONARY FILE UPDATES: 10 JAN 2005 HIGHEST RN 811411-12-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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conducting SmartSELECT searches.

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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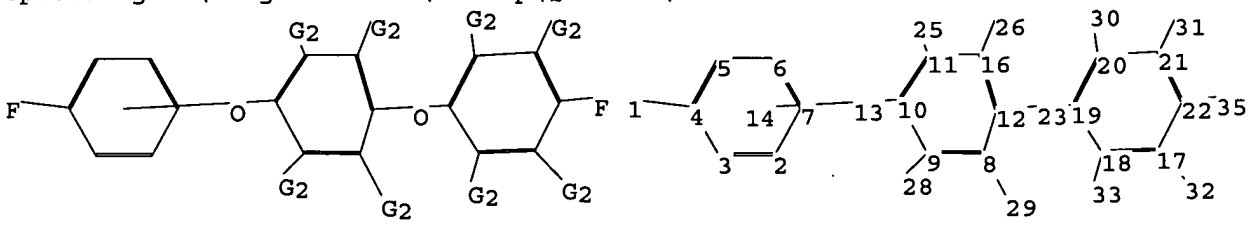

chain nodes :
1 13 23 25 26 28 29 30 31 32 33 35
ring nodes :
2 3 4 5 6 7 8 9 10 11 12 16 17 18 19 20 21 22
chain bonds :
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22-35
ring bonds :
2-3 2-7 3-4 4-5 5-6 6-7 8-9 8-12 9-10 10-11 11-16 12-16 17-18 17-22
18-19 19-20 20-21 21-22
exact/norm bonds :
8-29 9-28 10-13 11-25 12-23 16-26 17-32 18-33 19-23 20-30 21-31
exact bonds :
1-4 22-35
normalized bonds :
2-3 2-7 3-4 4-5 5-6 6-7 8-9 8-12 9-10 10-11 11-16 12-16 17-18 17-22
18-19 19-20 20-21 21-22

G1:N,X

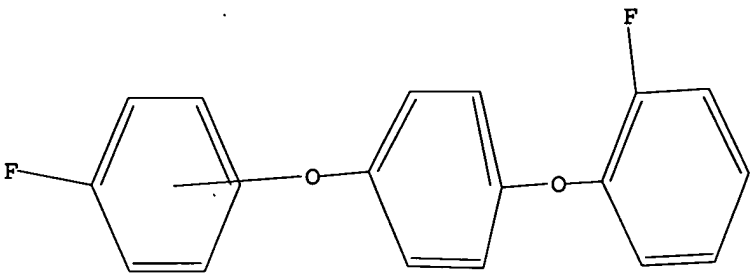
G2:X,Ak,H

Match level :

1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom 22:Atom 23:CLASS 25:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS
31:CLASS 32:CLASS 33:CLASS 35:CLASS

L53 STRUCTURE UPLOADED

=> d query
L53 STR



G1 N,X

Structure attributes must be viewed using STN Express query preparation.

=> s l53
SAMPLE SEARCH INITIATED 20:31:18 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 110 TO ITERATE

100.0% PROCESSED 110 ITERATIONS 7 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1571 TO 2829
PROJECTED ANSWERS: 7 TO 298

L54 7 SEA SSS SAM L53

=> s l53 full
FULL SEARCH INITIATED 20:31:24 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2122 TO ITERATE

100.0% PROCESSED 2122 ITERATIONS 103 ANSWERS
SEARCH TIME: 00.00.01

L55 103 SEA SSS FUL L53

=> fil caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 161.76 3991.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION

CA SUBSCRIBER PRICE 0.00 -265.72

FILE 'CAPLUS' ENTERED AT 20:31:30 ON 12 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 12 Jan 2005 VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005 (20050111/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l55
L56 89 L55

=> d 56 1-89 abs ibib hitstr

L56 ANSWER 56 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

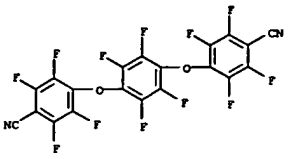
AB In the presence of fluoride ion, per- or polyfluoroarom. siloxanes C6F5OSi(CH3)3 (1), (CH3)3SiOC6F4OSi(CH3)3 (2), 1-fluoro-2,3-bis((trimethylsilyl)oxy)benzene (3), and (CH3)3SiOC(CF3)2C6F4C(CF3)2OSi(CH3)3 (4) are useful transfer reagents for the synthesis of mono- and diethers. Siloxane 1 forms RfOCF2Br (5), (RfO)3CF (6), RfOCH2ORf (7), (RfO)2CHCH(ORf)2 (8), (RfO)2SO (9), (RfO)2CO (10), C3N3(ORf)3 (11), RfOC(O)(CF2)3C(O)ORf (12), CF3SO2ORf (13), [cyclic] CF2C(ORf):C(ORf)CF2 (14), and [cyclic] CF2C(ORf):C(F)CF2 (15) (Rf = C6F5) with CF2Br2, CFBr3, CH2Br2, Br2CHCHBr2, SOF2, COF2, (CNF)3, ClC(O)(CF2)3C(O)Cl, CF3SO2F, 1,2-dichlorotetrafluorocyclobutene, and perfluorocyclobutene, resp. Compound 5 is readily converted to C6F5OCF2Si(CH3)3 (16) with hexaethylphosphorous triamide and (CH3)3SiCl in benzonitrile. With C6F5CN, CF3C6F5, C5F5N, CH3I, perfluorocyclobutene, CF3C(O)Cl and (CNF)3, 2 forms diethers p-CNC6F4OC6F4OC6F4CN-p (17), p-CF3C6F4OC6F4OC6F4CF3-p (18), NC5F4OC6F4OC5F4N (19), CH3OC6F4OCH3 (20), and C2F5C(O)OC6F4OC(O)C2F5 (21), resp. Reaction of 3 with 1,2-diiodotetrafluorobenzene in diglyme gives 1,4,9-trifluoro-2,3-diiodophenoxine (22). Disiloxane 4 with C6H5CH2Br, CH3I, C6F5CH2Br, and COF2 results in C6H5CH2OC(CF3)2C6F4C(CF3)2OCH2C6H5 (23), CH3OC(CF3)2C6F4C(CF3)2OCH3 (24), C6F5CH2OC(CF3)2C6F4C(CF3)2OCH2C6F5 (25), and [cyclic] C(O)OC(CF3)2C6F4C(CF3)2OC(O)OC(CF3)2C6F4C(CF3)2O (26), resp. These materials are thermally and hydrolytically stable and are formed in high yields.

ACCESSION NUMBER: 1995:269201 CAPLUS
DOCUMENT NUMBER: 122:133262
TITLE: Per- and Polyfluoroaryl Mono- and Disiloxanes as Transfer Reagents in the Synthesis of Highly Fluorinated Mono- and Diethers
AUTHOR(S): Patel, Nimesh R.; Chen, Jianguo; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1995), 34(1), 13-17
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:133262

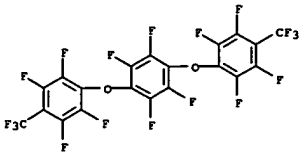
IT **15053-71-1P 15077-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15053-71-1 CAPLUS
CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 56 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

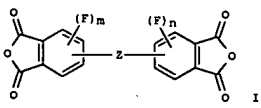


RN 15077-30-2 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



L56 ANSWER 1 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB This invention pertains to a method for producing bis[fluorine-containing phthalic anhydride) derivs. I [wherein m = 1-3; n = 1-3; Z = a single bond or a spacer], which comprises reacting a fluorine-containing dinitrile with a fluorine-containing hydroquinone, followed by hydrolysis and dehydration reaction. For example, 3,4,5,6-tetrafluorophthalonitrile was reacted with tetrafluorohydroquinone in Me iso-Bu ketone in the presence of KF to give the bisphthalonitrile (97%). The bisphthalonitrile was hydrolyzed in propionic acid in the presence of H2SO4 to afford the bis(phthalic acid) (75%). The bis(phthalic acid) was treated with acetic anhydride to provide the bis(phthalic anhydride) (98%).

ACCESSION NUMBER: 2004:1127358 CAPLUS
TITLE: Process for preparation of bis(fluorine-containing phthalic anhydride)
INVENTOR(S): Masuda, Go; Okumura, Yasunori; Nishimae, Shinji; Naraya, Toshihiro
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111026	A1	20041223	WO 2004-JP8829	20040617

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

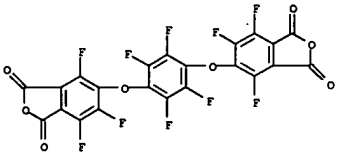
PRIORITY APPLN. INFO.: JP 2003-172046 A 20030617
JP 2003-201123 A 20030724

IT **143363-91-1P 143363-92-2P 143376-50-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic

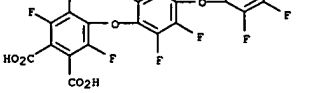
L56 ANSWER 1 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of bis(fluorine-contg. phthalic anhydride))

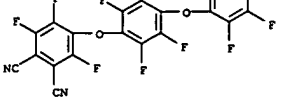
RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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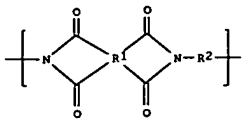


I

AB The polyimides have repeating units I (R1 = tetravalent aromatic group containing
F atoms directly bonded to C atoms on aromatic rings; R2 = divalent organic
group containing alicyclic structure). The polyimides are useful for red-emitting electroluminescent devices. The polyimides show high fluorescent intensity and good heat and H2O resistance.

ACCESSION NUMBER: 2004:931701 CAPLUS
DOCUMENT NUMBER: 141:403244
TITLE: Fluorescent polyimides and organic light-emitting devices using them
INVENTOR(S): Ando, Shinji; Urano, Yuichi
PATENT ASSIGNEE(S): Rikogaku Shinkokai, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

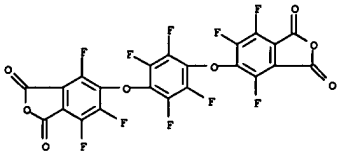
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004307857	A2	20041104	JP 2004-91585	20040326
PRIORITY APPLN. INFO.:			JP 2003-84629 A	20030326

IT **790229-67-3P 790229-68-4P 790229-69-5P**
790229-70-8P 790229-71-9P 790229-72-0P
790229-73-1P 790229-74-2P
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorescent fluorinated polyimides with good heat resistance for light-emitting devices)

RN 790229-67-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-methylenebis[cyclohexanamine] (9CI) (CA INDEX NAME)

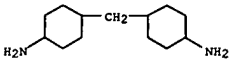
CM 1

CRN 143363-91-1
CMF C22 F10 O8



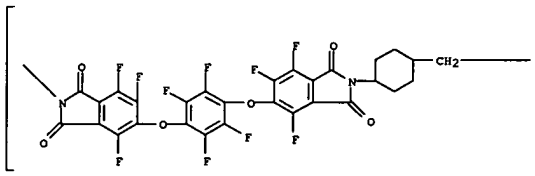
CM 2

CRN 1761-71-3
CMF C13 H26 N2

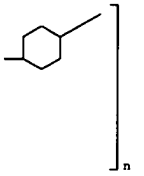


RN 790229-68-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-cyclohexanediylmethylene-1,4-cyclohexanediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



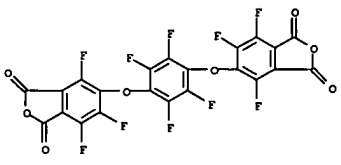
PAGE 1-B



RN 790229-69-5 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 1,4-cyclohexanediamine (9CI) (CA INDEX NAME)

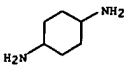
CM 1

CRN 143363-91-1
CMF C22 F10 O8



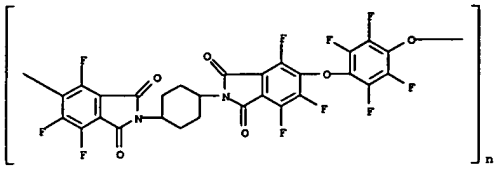
CM 2

CRN 3114-70-3
CMF C6 H14 N2



RN 790229-70-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-cyclohexanediyl(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

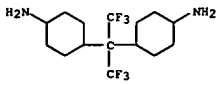
L56 ANSWER 2 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 790229-71-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[cyclohexanamine] (9CI) (CA INDEX NAME)

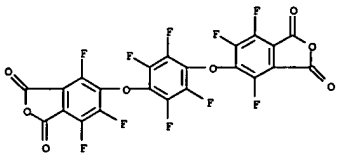
CM 1

CRN 473906-71-7
CMF C15 H24 F6 N2



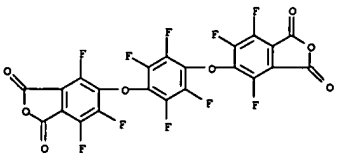
CM 2

CRN 143363-91-1
CMF C22 F10 O8



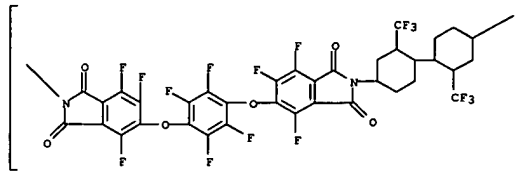
RN 790229-72-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-

L56 ANSWER 2 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

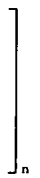


RN 790229-74-2 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-bicyclohexyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

PAGE 1-A

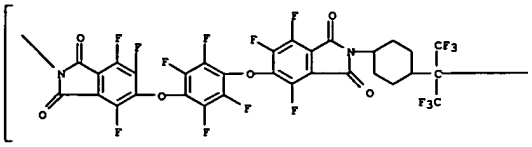


PAGE 1-B

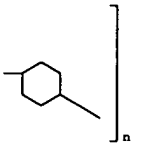


L56 ANSWER 2 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-cyclohexanediyl[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-cyclohexanediyl] (9CI) (CA INDEX NAME)

PAGE 1-A



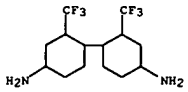
PAGE 1-B



RN 790229-73-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-bicyclohexyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 551950-80-2
CMF C14 H22 F6 N2



CM 2

CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 3 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The polyimide is that obtained by polymerization of (a) a dianhydride of a diacid having F-containing aromatic rings and (b) a diamine having sulfonic acid groups. The composition contains the polyimide and an agent for addition of proton conductivity The ionic conductor contains the polyimide or the composition A fluorinated polyamic acid obtained by polymerization of the above dianhydride and the dimaine is also claimed. The polyimide showing enhanced resistance to heat, boiling water, and radicals, is suitable for an electrolytic film in a fuel cell.

ACCESSION NUMBER: 2004:898860 CAPLUS
DOCUMENT NUMBER: 141:373556
TITLE: Sulfonic acid group-substituted fluorinated polyimide, composition containing the polyimide, and ionic conductor
INVENTOR(S): Nishichi, Ai; Matsumoto, Takeshi; Akutagawa, Hironobu; Omote, Kazushi; Yoshida, Masaya
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

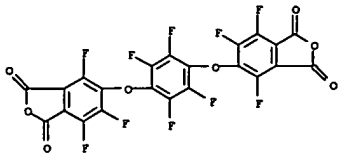
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004300208	A2	20041028	JP 2003-92639	20030328
PRIORITY APPLN. INFO.:			JP 2003-92639	20030328

IT 777865-72-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfonic acid group-substituted fluorinated polyimide for ionic conductor)
RN 777865-72-2 CAPLUS
CN [1,1'-Biphenyl]-2,2'-disulfonic acid, 4,4'-diamino-5,5'-dimethyl-, disodium salt, polymer with 4,4'-oxybis[benzenamine] and 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

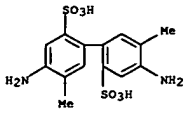
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 3 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

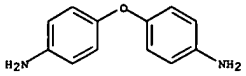
CRN 67027-35-4
CMF C14 H16 N2 O6 S2 . 2 Na



●2 Na

CM 3

CRN 101-80-4
CMF C12 H12 N2 O



L56 ANSWER 4 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Title method comprises forming on a substrate a coating film of a fluorine-containing polyimide precursor (e.g., 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer, polyamic acid) in an atmospheric having a relative humidity thereof adjusted to a level of not more than 50 RH% and then subjecting the fluorine-containing polyimide precursor to heat 30 treatment thereby forming a fluorine-containing polyimide film. The formation of the coating film is carried out by a spin coating method which comprises dropping the fluorine-containing polyimide precursor onto the substrate and spin coating the fluorine-containing polyimide precursor. The polyimide film exhibits excellent in heat resistance, resistance to chems., water repellency, dielec. properties, elec. properties, and optical properties.

ACCESSION NUMBER: 2004:732270 CAPLUS
DOCUMENT NUMBER: 141:244610
TITLE: Method and apparatus for production of fluorine-containing polyimide film
INVENTOR(S): Tajiri, Kozo; Goto, Shinichi; Asako, Yoshinobu; Kawada, Kumiko
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1454945	A1	20040908	EP 2004-251311	20040305
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2004269591	A2	20040930	JP 2003-59331	20030306
JP 2004267848	A2	20040930	JP 2003-59332	20030306
US 2004234686	A1	20041125	US 2004-795122	20040305
PRIORITY APPLN. INFO.:			JP 2003-59331 A	20030306
			JP 2003-59332 A	20030306

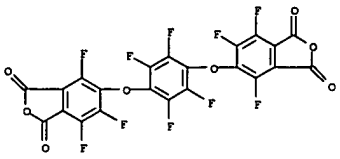
IT **143376-21-0P 143433-45-8P 484016-84-4P 484016-86-6P 750597-62-7P 750597-63-8P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(method and apparatus for production of fluorine-containing polyimide film)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

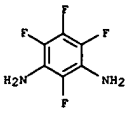
L56 ANSWER 4 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 143363-91-1
CMF C22 F10 O8

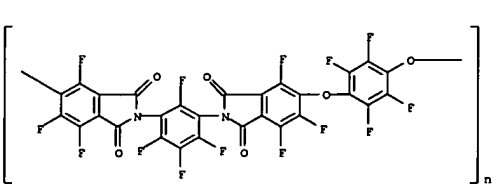


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

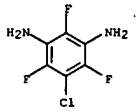


RN 484016-84-4 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 5-chloro-2,4,6-trifluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

L56 ANSWER 4 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

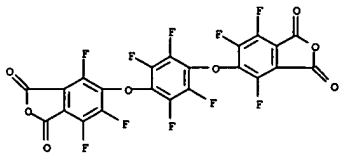
CM 1

CRN 474805-39-5
CMF C6 H4 Cl F3 N2

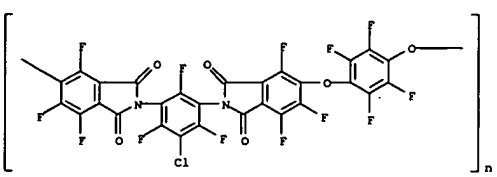


CM 2

CRN 143363-91-1
CMF C22 F10 O8



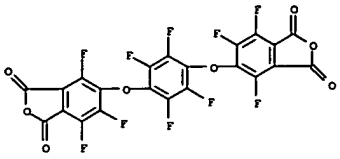
RN 484016-86-6 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(5-chloro-2,4,6-trifluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 4 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 750597-62-7 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[benzenamine] (9CI) (CA INDEX NAME)

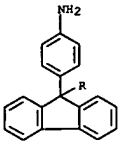
CM 1

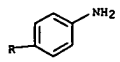
CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 15499-84-0
CMF C25 H20 N2

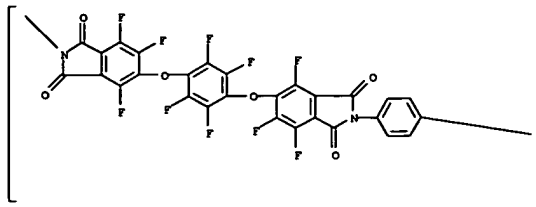




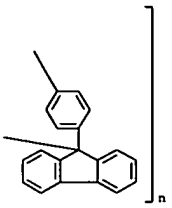
RN 750597-63-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene-9H-fluoren-9-ylidene-1,4-phenylene] (9CI) (CA INDEX NAME)

L56 ANSWER 4 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

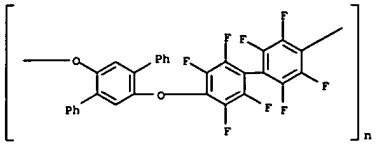
PAGE 1-A



PAGE 1-B

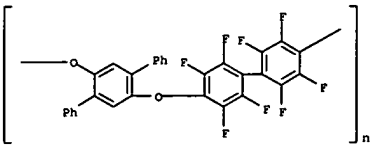


L56 ANSWER 5 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB A new poly(arylene ether) high temperature polymer was synthesized. The polymer
was converted into ionically conductive polymer by sulfonation and some of
the fundamental phys. properties of sulfonated and nonsulfonated materials
were evaluated.
ACCESSION NUMBER: 2004:670343 CAPLUS
DOCUMENT NUMBER: 141:424520
TITLE: New versatile and thermally stable poly(arylene ether)
AUTHOR(S): Bouguettaya, Mohamed; Basheer, Rafil A.
CORPORATE SOURCE: Delphi research labs, Delphi Corp., Shelby Township, MI, 48315, USA
SOURCE: Polymeric Materials: Science and Engineering (2004), 91, 492
CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
IT 794592-38-4P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and characterization of new versatile and thermally stable poly(arylene ether))
RN 794592-38-4 CAPLUS
CN Poly[oxy[1,1':4',1''-terphenyl]-2',5'-diyloxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)



IT 794592-38-4DP, sulfonated
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of new versatile and thermally stable poly(arylene ether))
RN 794592-38-4 CAPLUS
CN Poly[oxy[1,1':4',1''-terphenyl]-2',5'-diyloxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

L56 ANSWER 5 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 6 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The compns. containing repeating units of AD(R) [A = F-substituted (O- or S-containing) hydrocarbylene; D = F-substituted (O- or S-containing) trivalent hydrocarbon group; R = Si(OR1)(OR2)R3; R1, R2 = hydrocarbyl (each b.p. of R1OH and R2OH under normal pressure ≤250°); R3 = (F-substituted) double bond-terminated hydrocarbyl] show n and dielec. constant of their cured products 1.350-1.600 and 2.00-4.00, resp. The compns. give cured products with adjustable n and dielec. constant, and improved mech. properties and solvent resistance.

ACCESSION NUMBER: 2004:411677 CAPLUS
DOCUMENT NUMBER: 140:431126
TITLE: Manufacture of silicon-containing curable polymer compositions for planar optical waveguides and wiring boards
INVENTOR(S): Florence, Corey Nawarage
PATENT ASSIGNEE(S): Fujitsu Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

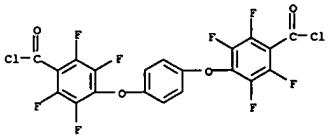
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143280	A2	20040520	JP 2002-309280	20021024
PRIORITY APPLN. INFO.:			JP 2002-309280	20021024

IT **691906-05-5DP**, reaction products with allyltrichlorosilane and ethanol **691906-07-7DP**, reaction products with allyltrichlorosilane and ethanol
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(crosslinked; manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)

RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

CM 1

CRN 691906-04-4
CMF C20 H4 Cl2 F8 O4



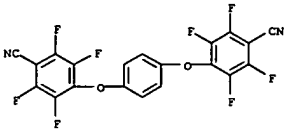
L56 ANSWER 6 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 2

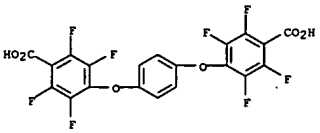
CRN 461-96-1
CMF C6 H3 Br F2

IT **691906-02-2P 691906-03-3P 691906-04-4P 691906-05-5P 691906-06-6P 691906-07-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)

RN 691906-02-2 CAPLUS
CN Benzonitrile, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 691906-03-3 CAPLUS
CN Benzoic acid, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

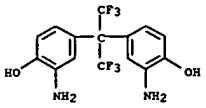


RN 691906-04-4 CAPLUS
CN Benzoyl chloride, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 6 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

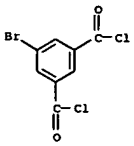
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2



CM 3

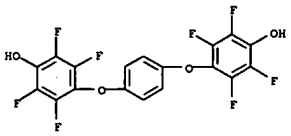
CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



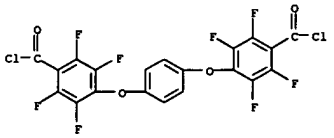
RN 691906-07-7 CAPLUS
CN Phenol, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro-, polymer with 1-bromo-3,5-difluorobenzene (9CI) (CA INDEX NAME)

CM 1

CRN 691906-06-6
CMF C18 H6 F8 O4



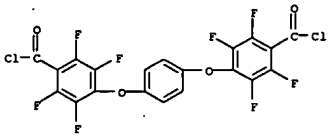
L56 ANSWER 6 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

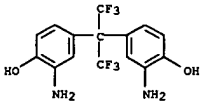
CM 1

CRN 691906-04-4
CMF C20 H4 Cl2 F8 O4



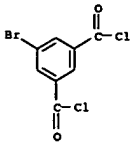
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

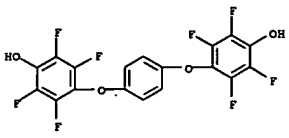


CM 3

CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



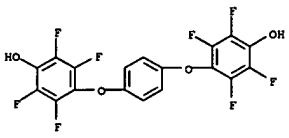
RN 691906-06-6 CAPLUS
CN Phenol, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 691906-07-7 CAPLUS
CN Phenol, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro-, polymer with
1-bromo-3,5-difluorobenzene (9CI) (CA INDEX NAME)

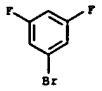
CM 1

CRN 691906-06-6
CMF C18 H6 F8 O4



CM 2

CRN 461-96-1
CMF C6 H3 Br F2



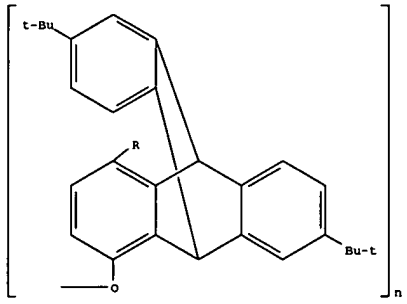
AB Polymers incorporating the triptycene subunit were prepared for the mol.-level design of low dielec. constant (low-κ) materials that can be used to manufacture faster integrated circuits. Triptycenes having restricted rotation by multiple point attachment to the polymer backbone are shown to introduce free volume into the films, thereby lowering their dielec. consts. We describe the use of the triptycene moiety as a rigid and shape-persistent component to introduce free volume into a polymer film.
This approach can produce bulk polymers with overall lower dielec. consts.
without necessitating the introduction of pore generators, thus eliminating problems inherent to porous polymers. Triptycenes and higher iptycenes were shown to increase free volume in polymer films, thereby decreasing the bulk dielec. constant of the material. The polymers do not
display any glass transitions, are highly thermally stable, and exhibit low water absorption. All of these characteristics are desired by the semiconductor industry for the next generation of microprocessors and memory for computers to provide insulation in the increasingly shrinking feature sizes of faster microprocessors. We believe these materials are viable candidates for evaluation for and incorporation into future generations of microchips.

ACCESSION NUMBER: 2004:231116 CAPLUS
DOCUMENT NUMBER: 141:141007
TITLE: Molecular design of free volume: a route to low-κ dielectric materials
AUTHOR(S): Long, Timothy M.; Swager, Timothy M.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Polymeric Materials Science and Engineering (2004), 90, 731-732
CODEN: PMSEDG; ISSN: 0743-0515
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English

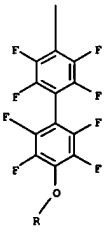
IT **632621-45-5 632621-47-7**
RL: PRP (Properties)
(free volume, dielec., thermal and surface properties of triptycene-based
polymers for low dielec. constant materials)

RN 632621-45-5 CAPLUS
CN Poly[oxy[6,14-bis(1,1-dimethylethyl)-9,10-dihydro-9,10[1',2']-benzenoanthracene-1,4-diyl]oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



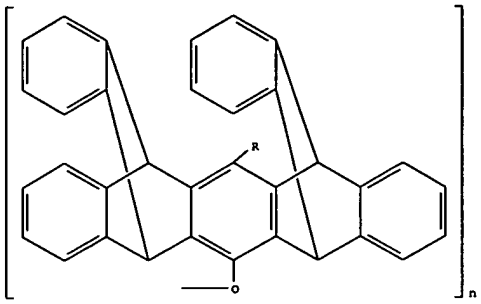
PAGE 2-A



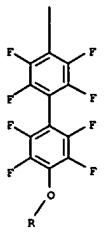
RN 632621-47-7 CAPLUS
CN Poly[oxy(5,7,12,14-tetrahydro-5,14[1',2']:7,12[1'',2'']-dibenzenopentacene-6,13-diyl)oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

L56 ANSWER 7 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



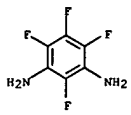
PAGE 2-A



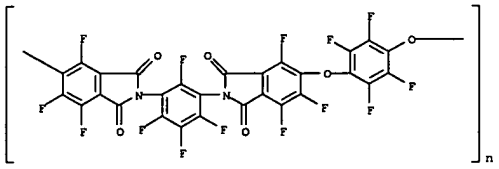
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L56 ANSWER 8 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 8 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The waveguides, showing relative refractive index difference ≥0.2% between cores and cladding layers, comprise cores containing fluorinated polymers or deuterated polymers and cladding layers containing fluorinated polymers or deuterated polymers with lower F or deuterium content than that of the cores or F- or deuterium-free polymers.

ACCESSION NUMBER: 2004:219234 CAPLUS
DOCUMENT NUMBER: 140:261194
TITLE: Low-cost polymer optical waveguides with low transmission loss
INVENTOR(S): Sakuma, Takeshi; Fujita, Daigo; Ogawa, Hironobu; Omichi, Koji; Hosoya, Hideyuki
PATENT ASSIGNEE(S): Fujikura Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

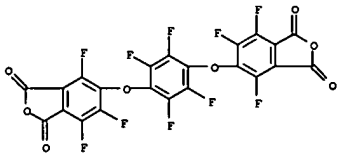
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004085937	A2	20040318	JP 2002-247401	20020827
PRIORITY APPLN. INFO.:			JP 2002-247401	20020827

IT **143376-21-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-tetrafluoro-m-phenylenediamine copolymer
143433-45-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(core layer; low-cost polymer optical waveguides with low transmission loss)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

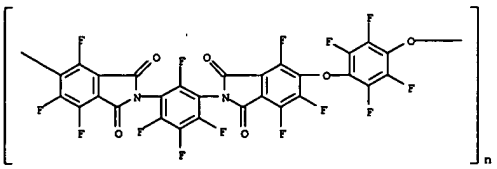
L56 ANSWER 9 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The temperature dependence of in-plane and out-of-plane refractive indexes (i.e., thermooptic coeffs. dn/dT) was measured for 7 kinds of aromatic polyimide (PI) films formed on Si substrates. The absolute values of dnTE/dT (polarization parallel to the film plane) are significantly larger than dnTM/dT (perpendicular to the film plane). The dn/dT for average refractive indexes (nav) are -94 to -58 ppm/K, independent of film thickness. The anisotropies (dnTE/dT-dnTM/dT) are -9 to -39 ppm/K. Although the values of nav are independent of film thickness, the anisotropies slightly increase as the film thickness decreases for flexible PI films. As expected from the temperature derivative of the Lorentz-Lorenz (LL) equation, the amorphous PI films exhibiting high nav show large dnav/dT, however, significant anisotropies are observed even for the PI films exhibiting very small birefringence.

ACCESSION NUMBER: 2003:961524 CAPLUS
DOCUMENT NUMBER: 140:153566
TITLE: Anisotropy in thermo-optic coefficients of polyimide films formed on Si substrates
AUTHOR(S): Terui, Yoshiharu; Ando, Shinji
CORPORATE SOURCE: Department of Organic and Polymeric Materials, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo, 152-8552, Japan
SOURCE: Applied Physics Letters (2003), 83(23), 4755-4757
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **143433-45-8**
RL: PRP (Properties)
(optical anisotropy in thermooptic coeffs. of films formed on silicon substrates)

RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



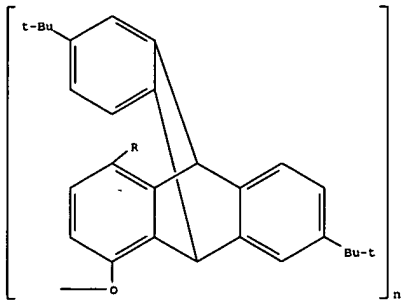
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS

L56 ANSWER 9 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

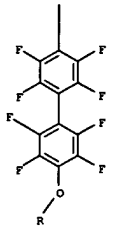
L56 ANSWER 10 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Polymers incorporating the triptycene subunit were prepared for the mol.-level design of low dielec. constant (low-κ) materials that can be used to manufacture faster integrated circuits. Triptycenes having restricted rotation by multiple point attachment to the polymer backbone are shown to introduce free volume into the films, thereby lowering their dielec. consts. The triptycene containing polymers exhibit a number of desirable properties including low-water absorption and high thermal stability. Systematic studies wherein comparisons are made between two sep. classes of triptycene polymers and their non-triptycene containing analogs demonstrate that proper insertion of triptycenes into a polymer backbone can give rise to a reduction in the material's dielec. constant while also improving its mech. properties. These characteristics are desired by the semiconductor industry for the next generation of microprocessors and memory to provide insulation of the increasingly shrinking features.
ACCESSION NUMBER: 2003:827002 CAPLUS
DOCUMENT NUMBER: 140:28127
TITLE: Molecular Design of Free Volume as a Route to Low-κ Dielectric Materials
AUTHOR(S): Long, Timothy M.; Swager, Timothy M.
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Journal of the American Chemical Society (2003), 125(46), 14113-14119
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **632621-45-5P 632621-47-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis, free volume, dielec., thermal and surface properties of triptycene-based low dielec. constant materials)
RN 632621-45-5 CAPLUS
CN Poly[oxy[6,14-bis(1,1-dimethylethyl)-9,10-dihydro-9,10[1',2']-benzenoanthracene-1,4-diyl]oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

L56 ANSWER 10 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



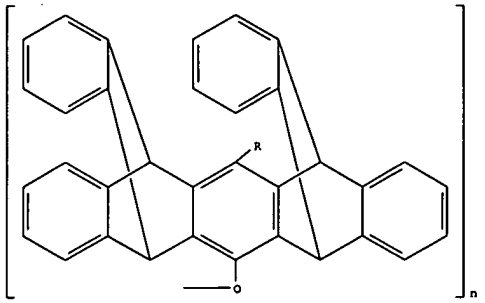
PAGE 2-A



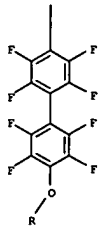
RN 632621-47-7 CAPLUS
CN Poly[oxy(5,7,12,14-tetrahydro-5,14[1',2']:7,12[1'',2'']-dibenzenopentacene-6,13-diyl)oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

L56 ANSWER 10 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
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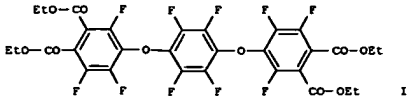
L56 ANSWER 11 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

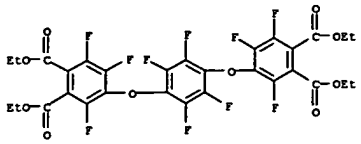
AB The title phthalic acid derivs. (Markush structure given) are prepared by reaction of tetrafluorophthalic acid derivs. with MAM [A = divalent organic moiety; M = H, et.]. Thus, I was prepared I is a raw material for the manufacture of fluorinated polyimides. The title phthalic acid derivs. are useful as intermediates for optical materials, liquid crystals, etc.

ACCESSION NUMBER: 2003:823334 CAPLUS
DOCUMENT NUMBER: 139:330642
TITLE: Phthalic acid derivatives as intermediates for halogenated polyimides, liquid crystals, etc., and process for manufacturing them
INVENTOR(S): Okumura, Yasunori; Kuwahara, Masayoshi; Masuda, Takeshi
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

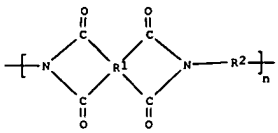
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003300934	A2	20031021	JP 2002-108095	20020410
PRIORITY APPLN. INFO.:			JP 2002-108095	20020410

OTHER SOURCE(S): MARPAT 139:330642
IT **615263-86-0**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(phthalic acid derivs. as intermediates for halogenated polyimides, optical materials, liquid crystals, and process for manufacturing them)
RN 615263-86-0 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, tetraethyl ester (9CI) (CA INDEX NAME)

L56 ANSWER 11 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 12 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The invention refers to an optical waveguide and wavelength modulator comprising a fluoro-polyimide I [R1,2 = halo- or fluoroalkyl-substituted Ph groups linked by -O-, -CO-, SO2-, -S-, -Rf-, -ORf-, -C(Rf)2-, -RfO-, -(ORf)n-, -(RfO)n-, -(ORf)nO-,OC:O-RfC:OO-; Rf = halo or fluoroalkyl; n = 1 - 10] which does not contain any C-H bonds.

ACCESSION NUMBER: 2003:582992 CAPLUS
DOCUMENT NUMBER: 139:140706
TITLE: Polyimide optical waveguide and polyimide filter-type wavelength combination/division device
INVENTOR(S): Kobayashi, Junya; Kawakami, Naomi; Yamada, Noriyoshi; Kagei, Emiko; Yamamoto, Fumio; Kudo, Ayako; Matsuura, Toru
PATENT ASSIGNEE(S): NTT Advanced Technology Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

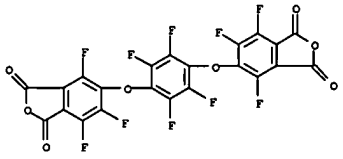
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003215364	A2	20030730	JP 2002-14719	20020123
PRIORITY APPLN. INFO.:			JP 2002-14719	20020123

IT **143376-21-0 143376-23-2 143433-45-8 143433-47-0 484016-84-4 484016-86-6**
RL: DEV (Device component use); USES (Uses)
(polyimide optical waveguide and polyimide filter-type wavelength combination/division device)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

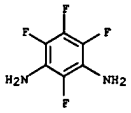
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 12 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

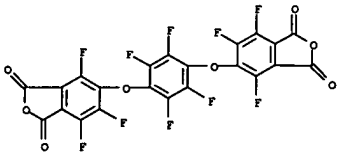
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 20115-19-9

L56 ANSWER 12 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
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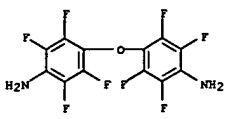
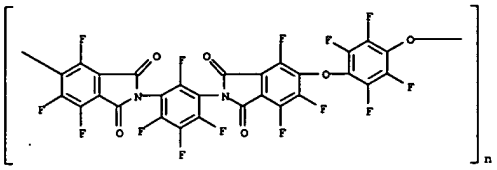
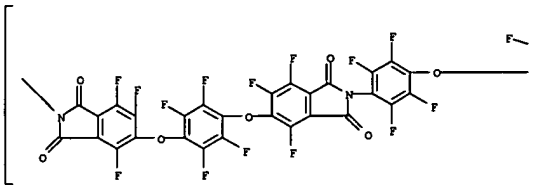


RN 143433-45-8 CAPLUS
CN Poly[{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl}(2,4,5,6-tetrafluoro-1,3-phenylene){4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl}oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

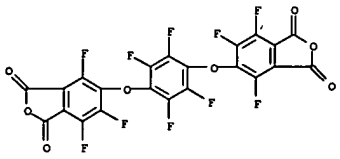


RN 143433-47-0 CAPLUS
CN Poly[{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl}oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl}(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

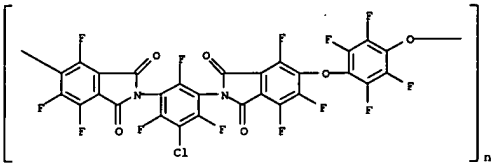
PAGE 1-A



L56 ANSWER 12 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

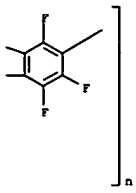


RN 484016-86-6 CAPLUS
CN Poly[{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl}(5-chloro-2,4,6-trifluoro-1,3-phenylene){4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl}oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 12 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

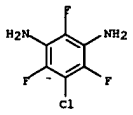
PAGE 1-B



RN 484016-84-4 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 5-chloro-2,4,6-trifluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 474805-39-5
CMF C6 H4 Cl F3 N2



CM 2

CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 13 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB A polyimide excelling in heat resistance, chemical resistance, water repellency, dielec. characteristics, elec. characteristics, and optical characteristics and a polyamic acid useful as the raw material therefor are provided. The polyimides are prepared from polyamic acids containing chlorine atoms and fluorine atoms. A polyamic acid was prepared from 1,3-diamino-2,4,5,6-tetrafluorobenzene, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis(3,5,6-trifluorophthalic anhydride), and 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis(3,5,6-trifluorophthalic anhydride).

ACCESSION NUMBER: 2003:40181 CAPLUS
DOCUMENT NUMBER: 138:90676
TITLE: Fluorine-containing polyamic acid and polyimide, and optical material
INVENTOR(S): Tajiri, Kozo; Kuwabara, Masayoshi; Okumura, Yasunori; Matsuura, Tohru; Yamada, Noriyoshi
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan; NTT Advanced Technology Corp.
SOURCE: Eur. Pat. Appl., 44 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

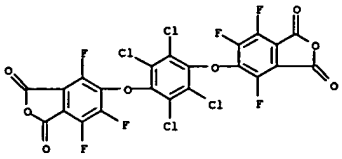
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1275679	A1	20030115	EP 2002-254908	20020712
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2003026799	A2	20030129	JP 2001-213743	20010713
JP 2003026800	A2	20030129	JP 2001-213744	20010713
US 2003050407	A1	20030313	US 2002-194791	20020711
CN 1397583	A	20030219	CN 2002-126201	20020715

PRIORITY APPLN. INFO.: JP 2001-213743 A 20010713
JP 2001-213744 A 20010713

IT **484016-83-3P 484016-84-4P 484016-86-6P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fluorine-containing polyamic acid and polyimide, and optical material)
RN 484016-83-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine and 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

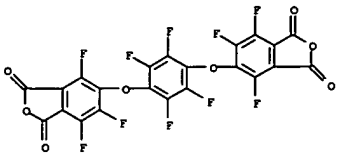
CM 1

CRN 474805-33-9
CMF C22 Cl4 F6 O8



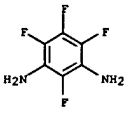
CM 2

CRN 143363-91-1
CMF C22 F10 O8



CM 3

CRN 1198-63-6
CMF C6 H4 F4 N2

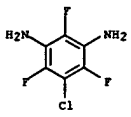


RN 484016-84-4 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 5-chloro-2,4,6-trifluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

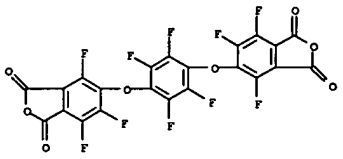
CRN 474805-39-5

CMF C6 H4 Cl F3 N2

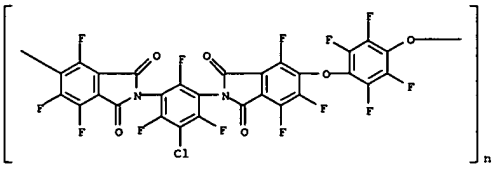


CM 2

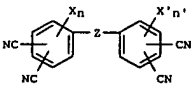
CRN 143363-91-1
CMF C22 F10 O8



RN 484016-86-6 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(5-chloro-2,4,6-trifluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



I

AB The compds. are prepared by hydrolysis of aromatic tetranitriles I (X, X' = halo; n, n' = 1-3; Z = single bond, O, S, O-p-C6H4-mYmO, etc; Y = halo; m = 1-4) in the presence of acids in organic solvents. 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzene was treated with H2SO4 in propionic acid under reflux for 6 h to give 95.7% 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene.

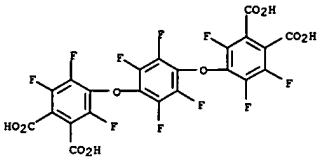
ACCESSION NUMBER: 2002:886125 CAPLUS
DOCUMENT NUMBER: 137:384650
TITLE: Preparation of halogen-containing aromatic carboxylic acids
INVENTOR(S): Kuwahara, Masayoshi; Yokoo, Junko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002332253	A2	20021122	JP 2001-142027	20010511
JP 3490407	B2	20040126		
PRIORITY APPLN. INFO.:			JP 2001-142027	20010511

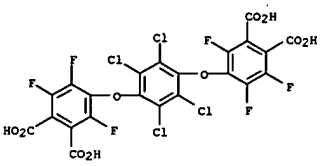
OTHER SOURCE(S): MARPAT 137:384650

IT **143363-92-2P 474805-31-7P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of halogen-containing aromatic carboxylic acids)

RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

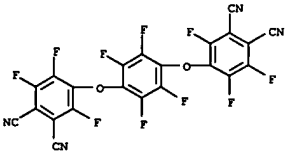


RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



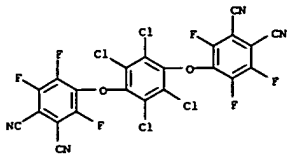
IT **143376-50-5**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)

RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **474805-29-3P**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenzene
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)

L56 ANSWER 14 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 15 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The present invention relates to halogen-containing aromatic compds. and methods
thereof. The present invention relates a halogen-containing aromatic acid
dianhydride, halogen-containing aromatic tetranitrile compound, halogen-containing
m-phenylenediamine compound and fluorine compound, and a method thereof. Tetrafluorophthalonitrile was reacted with tetrachlorohydroquinone in the presence of potassium fluoride and acetonitrile to give 1,4-bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenzene.
ACCESSION NUMBER: 2002:866679 CAPLUS
DOCUMENT NUMBER: 137:354701
TITLE: Halogen-containing aromatic compound
INVENTOR(S): Kuwabara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan; Nippon Catalytic Chem. Ind.
SOURCE: Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

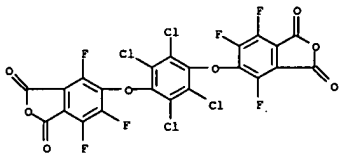
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1256564	A1	20021113	EP 2002-253088	20020501
EP 1256564	B1	20040728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002332268	A2	20021122	JP 2001-142028	20010511
JP 2002332281	A2	20021122	JP 2001-142029	20010511
JP 2002332264	A2	20021122	JP 2001-142031	20010511
JP 3563040	B2	20040908		
JP 2002332254	A2	20021122	JP 2001-142032	20010511
US 2003018204	A1	20030123	US 2002-133158	20020426
EP 1462436	A1	20040929	EP 2004-10371	20020501
R: DE, FR, GB				
CN 1385427	A	20021218	CN 2002-119176	20020513

PRIORITY APPLN. INFO.:

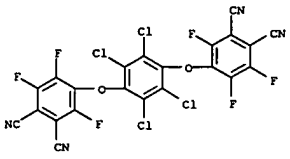
JP 2001-142028	A	20010511
JP 2001-142029	A	20010511
JP 2001-142031	A	20010511
JP 2001-142032	A	20010511
EP 2002-253088	A3	20020501

OTHER SOURCE(S): MARPAT 137:354701
IT 474805-33-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(halogen-containing aromatic compound)
RN 474805-33-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)

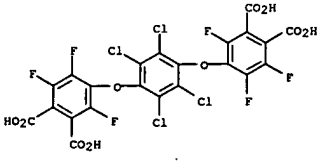
L56 ANSWER 15 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 474805-29-3P 474805-31-7P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(halogen-containing aromatic compound)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L56 ANSWER 15 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L56 ANSWER 16 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

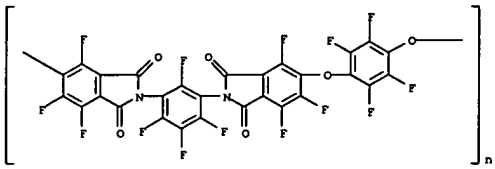
AB The devices comprise: (1) a substrate/cladding comprising a 1st fluorinated polyimide (n = n1); (2) a core comprising a 2nd fluorinated polyimide (n = n2 > n1); and (3) a upper cladding layer comprising a 1st fluorinated polyimide (n = n1), where the laminate (1)-(3) are heat-compressed.

ACCESSION NUMBER: 2002:750899 CAPLUS
DOCUMENT NUMBER: 137:286156
TITLE: Optical waveguide equipped substrate devices and manufacture
INVENTOR(S): Matsuura, Toru; Yamamoto, Fumio; Yokoyama, Hirokazu; Sugimoto, Noriki; Moriyama, Hideki
PATENT ASSIGNEE(S): NTT Advanced Technology Corp., Japan; Du Pont-Toray Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002286957	A2	20021003	JP 2001-91856	20010328
PRIORITY APPLN. INFO.:			JP 2001-91856	20010328

IT **143433-45-8**
RL: DEV (Device component use); USES (Uses)
(optical waveguide equipped substrate devices and manufacture)

RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 17 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The refractive indexes of eleven kinds of polyimide (PI) films formed on silicon substrates have been measured at three wavelengths (0.633, 1.320, and 1.523 μm) in the transverse elec. (TE) and transverse magnetic (TM) polarization modes using the prism-coupling method. The wavelength dependence of average refractive indexes was fitted using the simplified Cauchy's formula, and the estimated refractive indexes at infinite wavelength (ninf) and the coeffs. of wavelength dispersion (D) were determined The PIs having higher ninf exhibit larger D, and the values of D are linearly proportional to ninf for aromatic PIs, while those of wholly alicyclic PIs are very small and deviate from the linearity. In a similar manner, the in-plane/out-of-plane birefringence (Δn) values of the aromatic PIs having higher refractive indexes are large and show significant wavelength dependence, while the values of Δn of alicyclic PIs are negligible. Approx. equations are presented for aromatic PIs to estimate ninf and refractive indexes at 1.320 and 1.523 μm from a refractive index at 0.633 μm.

ACCESSION NUMBER: 2002:638977 CAPLUS
DOCUMENT NUMBER: 137:353613
TITLE: Wavelength dependence of refractive indices of polyimides in visible and near-IR regions
AUTHOR(S): Ando, Shinji; Watanabe, Yasufumi; Matsuura, Tohru
CORPORATE SOURCE: Department of Organic and Polymeric Materials, Tokyo Institute of Technology, Tokyo, 152-8552, Japan
SOURCE: Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes & Review Papers (2002), 41(8), 5254-5258
CODEN: JAPNDE
PUBLISHER: Japan Society of Applied Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

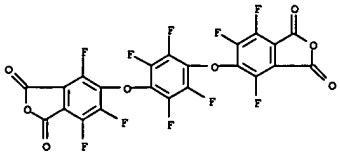
IT **143376-21-0 143433-45-8 148362-06-5 148446-36-0**
RL: PRP (Properties)
(effect of refractive indexes of polyimides-(polyether-fluoropolymers) on wavelength in visible and near-IR regions)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

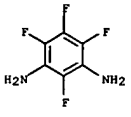
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 17 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

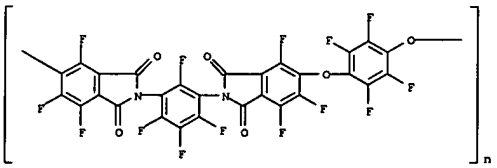


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



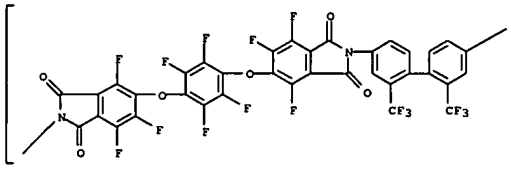
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

L56 ANSWER 17 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

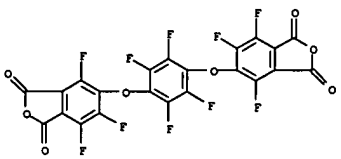


PAGE 1-B

RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

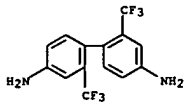
CRN 143363-91-1
CMF C22 F10 O8



L56 ANSWER 17 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

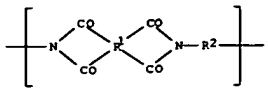
CM 2

CRN 341-58-2
CMF C14 H10 F6 N2



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L56 ANSWER 18 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The magnetic components, useful for elec. transformers, DC converters, etc., have insulation layers of polyimides I (R1 = tetravalent aromatic group; R2 = divalent aromatic group; R1 and/or R2 have no C-H bond).
ACCESSION NUMBER: 2002:139128 CAPLUS
DOCUMENT NUMBER: 136:209529
TITLE: Heat-resistant thin-film magnetic components with low stray capacitance having polyimide insulation layers with low dielectric constant
INVENTOR(S): Tajiri, Kozo; Konishi, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

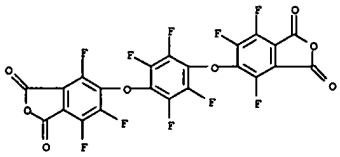
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002057032	A2	20020222	JP 2000-243310	20000810
PRIORITY APPLN. INFO.:			JP 2000-243310	20000810

IT **143376-21-0 143433-45-8**
RL: TEM (Technical or engineered material use); USES (Uses)
(heat-resistant thin-film magnetic components with low stray capacitance having polyimide insulation layers with low dielec. constant)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

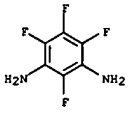
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 18 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

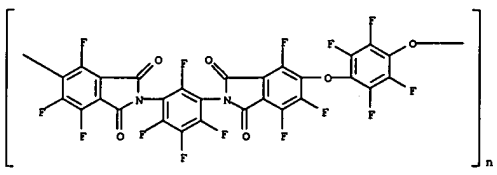


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



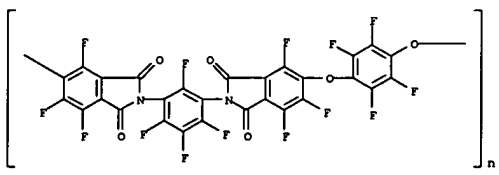
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 19 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The repeating units of polyimides for coating materials contain tetravalent aromatic organic groups and aromatic groups having no CH bonds. Thus, a film of 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer had dielec. constant 2.6 at 1 MHz, compared with 3.5 for a com. polyimide.
ACCESSION NUMBER: 2002:139034 CAPLUS
DOCUMENT NUMBER: 136:185465
TITLE: Insulating coating materials for coil wire
INVENTOR(S): Tajiri, Kozo; Kuwahara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002056720	A2	20020222	JP 2000-243309	20000810
PRIORITY APPLN. INFO.:			JP 2000-243309	20000810

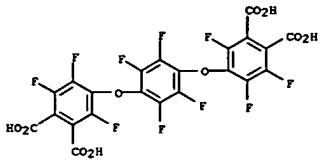
IT **143433-45-8**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer, SRU **148273-08-9**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fluoro polyimide insulating coating materials for coil wire)
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

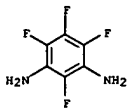
L56 ANSWER 19 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CM 1

CRN 143363-92-2
CMF C22 H4 F10 O10

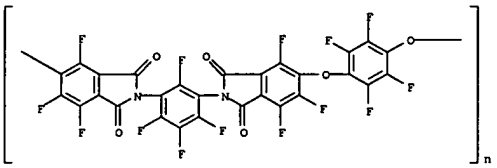


CM 2

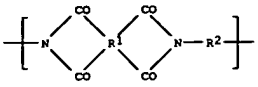
CRN 1198-63-6
CMF C6 H4 F4 N2



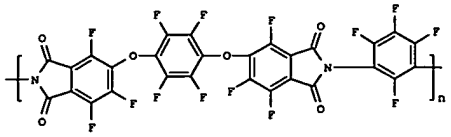
L56 ANSWER 20 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 20 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

AB The agent is a polyimide of I (R1 = tetravalent aromatic organic group; R2 =
divalent aromatic organic group; R1 and/or R2 = aromatic organic group without C-H
bonding). Thus, a coating was made from II in dimethyacetoamide.

ACCESSION NUMBER: 2002:129271 CAPLUS
DOCUMENT NUMBER: 136:169089
TITLE: Surface coating agent for printed circuit board with relatively low dielectricity, good heat resistance, and good moisture resistance
INVENTOR(S): Tajiri, Kozo; Kuwahara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002053802	A2	20020219	JP 2000-243308	20000810
PRIORITY APPLN. INFO.:			JP 2000-243308	20000810

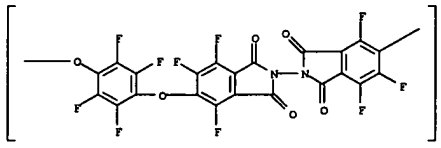
IT **143433-45-8**
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(surface coating agent for printed circuit board with relatively low dielectricity, good heat resistance, and good moisture resistance)
RN 143433-45-8 CAPLUS

L56 ANSWER 21 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title circuit boards comprise substrate materials, circuit layers, adhesive layers, and surface-protection films. The substrate, adhesive, and/or surface-protection insulator materials are made from a polyimide (I: R1 = tetravalent aromatic organic group; R2 = aromatic organic group not containing
C-H bonding). The polyimides gives the circuit boards improved size and dielec. stability and suitable for high-frequency flexible printed circuit
boards.

ACCESSION NUMBER: 2001:796858 CAPLUS
DOCUMENT NUMBER: 135:351388
TITLE: High-frequency multilayer circuit boards
INVENTOR(S): Tajiri, Kozo; Konishi, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001308542	A2	20011102	JP 2000-119916	20000420
PRIORITY APPLN. INFO.:			JP 2000-119916	20000420

IT **371976-28-2P 371976-29-3P**
RL: DEV (Device component use); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); USES (Uses)
(insulator film; high-frequency multilayer circuit boards)
RN 371976-28-2 CAPLUS
CN Poly[(4,4',6,6',7,7'-hexafluoro-1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[2,2'-bi-2H-isoindole]-5,5'-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

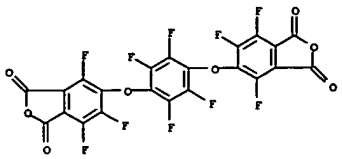


RN 371976-29-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with hydrazine (9CI) (CA
INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 21 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

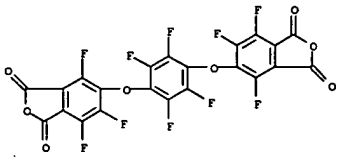
CRN 302-01-2
CMF H4 N2

H_2N-NH_2

L56 ANSWER 22 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8

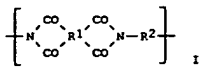


CM 2

CRN 302-01-2
CMF H4 N2

H_2N-NH_2

L56 ANSWER 22 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



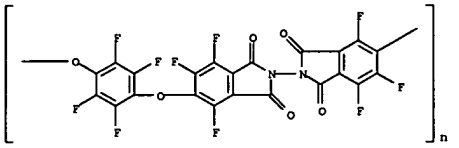
I

AB The title board comprises a dielec. film from a polyimide having a repeating unit represented by (I), where R1 = tetravalent arm. organic group, R2 = divalent arm. organic group, and R1 and/or R2 being free of a C-H bond.
The board has a superior high-frequency transmission property.

ACCESSION NUMBER: 2001:796833 CAPLUS
DOCUMENT NUMBER: 135:351372
TITLE: Wiring board for high-frequency application
INVENTOR(S): Tajiri, Kozo; Konishi, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001308474	A2	20011102	JP 2000-119917	20000420
PRIORITY APPLN. INFO.:			JP 2000-119917	20000420

IT **371976-28-2 371976-29-3**
RL: DEV (Device component use); USES (Uses)
(polyimide dielec. film for wiring board for high-frequency application)
RN 371976-28-2 CAPLUS
CN Poly[(4,4',6,6',7,7'-hexafluoro-1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[2,2'-bi-2H-isoindole]-5,5'-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

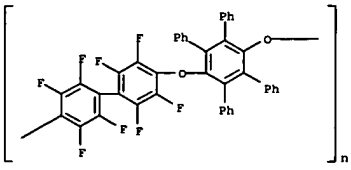


RN 371976-29-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with hydrazine (9CI) (CA

L56 ANSWER 23 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Two kinds of new aromatic poly(arylene ether)s containing sulfonic acid groups were synthesized. Polymer 1 composed of tetraphenylphenylene ether and perfluorobiphenylene units was sulfonated with chlorosulfonic acid. Sulfonation took place only at the para position of the pendant Ph rings. The average degree of sulfonation per repeating unit (m) was controlled from 1 to 4. Sulfonated polymer 2 with m = 3 was soluble in methanol and DMSO and swelled in water. Incorporating bis(3,5-dimethylphenyl)sulfone moieties into the sulfonated polymer imparts less methanol affinity. Polymers 4 with 30-65 mol % tetrakis(sulfophenyl)phenylene ether units has high decomposition temps. above 300°C, hydrophilicity, and good hydrolytic stability.

ACCESSION NUMBER: 2001:670068 CAPLUS
DOCUMENT NUMBER: 135:372091
TITLE: Synthesis and properties of poly(arylene ether)s bearing sulfonic acid groups on pendant phenyl rings
AUTHOR(S): Miyatake, Kenji; Hay, Allan S.
CORPORATE SOURCE: Department of Chemistry, McGill University, Montreal, QC, H3A 2K6, Can.
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2001), 39(19), 3211-3217
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **338453-92-2DP**, para-phenyl-sulfonated
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(1-4 sulfonate groups per repeating unit; synthesis and properties of poly(arylene ethers) bearing sulfonic acid groups on pendant Ph rings)
RN 338453-92-2 CAPLUS
CN Poly[oxy(4',5'-diphenyl[1,1':2',1''-terphenyl]-3',6'-diyl)oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 24 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

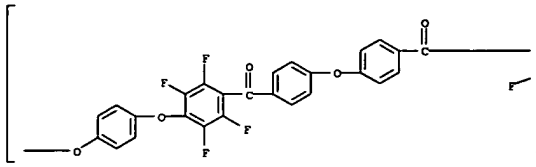
AB The compds. QCO-p-C6H4O-p-C6H4R (Q = 2,3,4,5,6-pentafluorophenyl; R = OH, COQ) are manufactured Thus, 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone (prepared from 2,3,4,5,6-pentafluoro-4'-methoxybenzophenone) was polymerized in dimethylacetamide at 160° to give a polymer showing good solubility in dimethylacetamide and m-cresol, 10% weight loss (in air) temperature 421°.

ACCESSION NUMBER: 2001:176773 CAPLUS
DOCUMENT NUMBER: 134:208664
TITLE: (2,3,4,5,6-pentafluorobenzoyl)diphenyl ethers and fluorine-containing aryl ether ketone polymers having high solubility and heat stability
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Casiday, Rachel E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001064226	A2	20010313	JP 1999-183950	19990629
PRIORITY APPLN. INFO.:			US 1998-106270 A	19980629
			JP 1999-180091 A	19990625

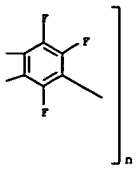
IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
((pentafluorobenzoyl)phenyl ether as monomers for F-containing aryl ether ketone polymers having high solubility and heat stability)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 24 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

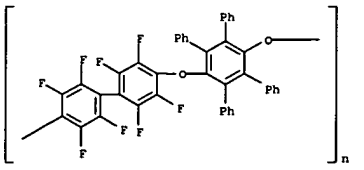


L56 ANSWER 25 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The polymerization of 2,3,5,6-tetraphenylhydroquinone (or 2,2',3,3',5,5'-hexaphenyl-4,4'-dihydroxybiphenyl) with α,ω-tetrahydroperfluoroalkanediol and decafluorobiphenyl was carried out to synthesize a series of copolymers III (Mw = 49 100-80 900). The copolymers III are composed of arylene ether (10-30 mol %) and fluorinated alkane (90-70 mol %) moieties. The reaction of III with chlorosulfonic acid gave sulfonated polymers IV, which are soluble in polar organic solvents and form flexible and transparent films by casting from solution The polymers IV have glass transition temps. of 109-155° and decomposition temps. of ca. 300°. The hydrated polymers show protonic conductivity (3.4 + 10-3 S cm-1), which does not decrease at temps. up to 170 °C.

ACCESSION NUMBER: 2001:153020 CAPLUS
DOCUMENT NUMBER: 134:340775
TITLE: Synthesis and Properties of Novel Sulfonated Arylene Ether/Fluorinated Alkane Copolymers
AUTHOR(S): Miyatake, Kenji; Oyaizu, Kenichi; Tsuchida, Eishun; Hay, Allan S.
CORPORATE SOURCE: Department of Chemistry, McGill University, Montreal, QC, H3A 2K6, Can.
SOURCE: Macromolecules (2001), 34(7), 2065-2071
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **338453-92-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and properties of sulfonated arylene ether/fluorinated alkane copolymers)
RN 338453-92-2 CAPLUS
CN Poly[oxy(4',5'-diphenyl[1,1':2',1''-terphenyl]-3',6'-diyl)oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 26 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

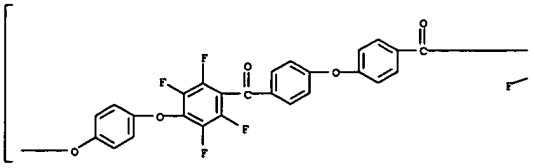
AB The compns., useful for elec. insulating materials, contain (p-C6F4COC6H4-qXqOR1m)n [R1 = C6H4-rX'r(CO-p-C6F4OR2)pO; R2 = divalent aryl; X, X' = halo, lower alkyl, alkoxy; q, r = 0-4; m,p = 0, 1]. Thus, 2,2-bis(4-hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane was polymerized with 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl)diphenyl ether to give a polymer showing dielec. constant 3.06 at 25°, 10% weight loss temperature 524° under N, and Tg 174°.

ACCESSION NUMBER: 2001:124290 CAPLUS
DOCUMENT NUMBER: 134:179345
TITLE: Low dielectric fluorinated aromatic polyether ketone compositions with good heat resistance
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001049110	A2	20010220	JP 1999-226981	19990810
JP 3539897	B2	20040707		
PRIORITY APPLN. INFO.:			JP 1999-226981	19990810

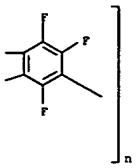
IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low dielec. fluorinated aromatic polyether ketone compns. with good heat resistance)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 26 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 27 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Ketonic di-Ph ethers of p-R1COC6H4OC6H4R2-p type compds. (R1 = 2,3,4,5,6-pentafluorobenzoyl; R2 = OH, pentafluorobenzoyl group) and polyether-polyketone polymers containing tetrafluorophenylene and phenylene groups are provided which have good mech. strength, toughness, elec. property, thermal oxidative stability and solubility Thus, heating 0.5 g 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone with 0.36 ground K carbonate, 2 mL N-methyl-2-pyrrolidone and 1 mL PhMe at 160° while stirring for 3 h gave a polymer at 85% yield and having viscosity 0.5 g/dL in AcNMe2.

ACCESSION NUMBER: 2001:25791 CAPLUS
DOCUMENT NUMBER: 134:86663
TITLE: (2,3,4,5,6-Pentafluorobenzoyl)diphenyl ether compound, and fluorine-containing aryl ether ketone polymer
INVENTOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 106,270, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

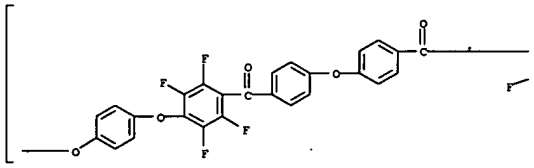
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6172181 B1		20010109	US 1999-354976	19990716
PRIORITY APPLN. INFO.:			US 1998-106270	19980629

OTHER SOURCE(S): MARPAT 134:86663

IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(manufacture of (2,3,4,5,6-pentafluorobenzoyl)diphenyl ether compound and fluorine-containing aryl ether ketone polymer)

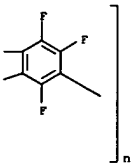
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 27 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 28 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB An electrolyte is provided having a backbone that includes a plurality of aromatic constituents coupled together by at least one atom having a π-cloud, and in which a halogen atom and an ion exchange group are covalently bound directly to the backbone. Furthermore, the electrolyte is high temperature resistant and may comprise perhalogenated polymers, including perhalogenated polyphenylenes, perhalogenated polyamides, perhalogenated aromatic polyesters, perhalogenated polyimide, etc. Still further, the electrolyte may have acidic groups as ion exchange groups, including sulfonic acid groups, or phosphoric acid groups. A typical polymer electrolyte was manufactured by solid-liquid phase transfer polymerization of 2,3,5,6-tetrakis(benzylthio)-1,4-hydroquinone 18 h at 80° with bis(pentafluorophenyl) sulfone in the presence of K2CO3 and 18-crown-6 in AcNMe2, reaction of resulting polymer 15 h with Cl in CH2Cl2 containing HOAc and water, and conversion of the resulting sulfonyl chloride group-containing polymer to a sulfonic acid group-containing polymer by reaction with aqueous NaOH in DME.

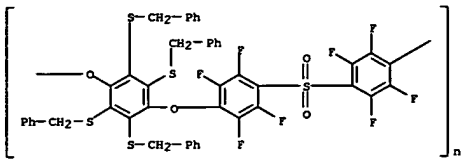
ACCESSION NUMBER: 2001:12796 CAPLUS
DOCUMENT NUMBER: 134:72076
TITLE: High-temperature polymer electrolytes
INVENTOR(S): Narang, Subhash; Ventura, Susanna
PATENT ASSIGNEE(S): Sri International, USA
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001510	A1	20010104	WO 2000-US40282	20000621
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6248480	B1	20010619	US 1999-340778	19990628
PRIORITY APPLN. INFO.:			US 1999-340778 A	19990628
			US 1998-91051P P	19980629
			US 1998-109154P P	19981120

IT **316149-04-9P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(high-temperature polymer electrolytes)

RN 316149-04-9 CAPLUS
CN Poly[oxy(2,3,5,6-tetrakis[(phenylmethyl)thio]-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)sulfonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 28 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L56 ANSWER 29 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB High temperature polybenzazole and polyether polymer electrolytes are provided.

High temperature polybenzazole polymer electrolytes may comprise a benzobisoxazole, a benzobisthiazole, a benzobisimidazole, a difluorodisulfonated Ph ring or a sulfonated bisphenylether. High temperature

polyether polymers comprise a persulfonated Ph ring, and a substituted Ph ring or a substituted bisphenylsulfonyl ring system.

ACCESSION NUMBER: 2001:12792 CAPLUS
DOCUMENT NUMBER: 134:86656
TITLE: High temperature polybenzazole and polyether electrolytes
INVENTOR(S): Narang, Subhash; Ventura, Susanna; Koolpe, Gary
PATENT ASSIGNEE(S): Sri International, USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001506	A1	20010104	WO 2000-US40278	20000621
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6176984	B1	20010123	US 1999-340777	19990628
EP 1243043	A1	20020925	EP 2000-957985	20000621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003503599	T2	20030128	JP 2001-506630	20000621

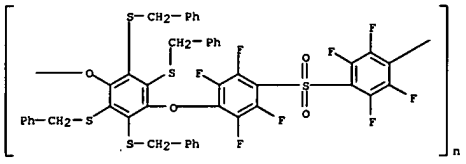
PRIORITY APPLN. INFO.:

US 1999-340777	A	19990628
US 1998-91051P	P	19980629
US 1998-109154P	P	19981120
WO 2000-US40278	W	20000621

IT **316149-04-9P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(high temperature polybenzazole and polyether electrolytes)

RN 316149-04-9 CAPLUS
CN Poly[oxy[2,3,5,6-tetrakis[(phenylmethyl)thio]-1,4-phenylene]oxy(2,3,5,6-tetrafluoro-1,4-phenylene)sulfonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 29 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L56 ANSWER 30 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Following a review (50 refs.) on optical fibers and the preparation and characterization of perfluorinated diamines and dianhydrides new results are presented with respect to synthesis and properties of the corresponding perfluorinated polyimides. Novel perfluorinated polyimides were synthesized from newly prepared 1,4-bis(3,4-dicarboxylictrifluorophenoxy)tetrafluorobenzene dianhydride (10FEDA) and several perfluorinated aromatic diamines. To generate high mol. weight perfluorinated poly(amic acid)s, the reactivities of 5 diamines and their monoacyl derivs. were estimated before from end group contents (19F NMR) of

the corresponding poly(amic acid), 15N and 1H NMR shifts, and calculated ionization potentials. The perfluorinated polyimides synthesized from 10FEDA and 3 (out of the 5) selected diamines gave flexible films with glass transition temps. values >270° and with high transparencies at the wavelengths of optical communications (1.0-1.7 μm) with sufficient mech. strength. Their dielec. consts. and refractive indexes are as low as those of conventional fluorinated polyimides, and their in-plane/out-of-plane birefringence is low. These characteristics indicate that perfluorinated polyimides are promising materials for optical communication applications.

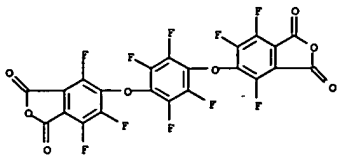
ACCESSION NUMBER: 2000:292601 CAPLUS
DOCUMENT NUMBER: 133:193573
TITLE: Synthesis and properties of perfluorinated polyimides
AUTHOR(S): Ando, Shinji; Matsuura, Tohru; Sasaki, Shigekuni
CORPORATE SOURCE: Science and Core Technology Group, Nippon Telegraph and Telephone Corp., Musashino, 180, Japan
SOURCE: Fluoropolymers (1999), Volume 2, 277-303. Editor(s): Hougham, Gareth. Kluwer Academic/Plenum Publishers: New York, N. Y.
CODEN: 68WRAL
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

IT **143376-21-0P 143376-22-1P 143376-23-2P**
143376-24-3P 143433-45-8P 143433-46-9P
143433-47-0P 143433-48-1P 289650-74-4P
289650-76-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and properties operfluorinated polyimides)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

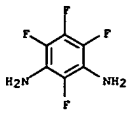
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

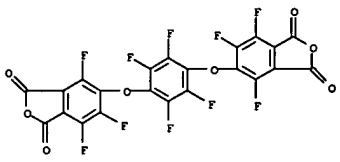
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-22-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,3,5,6-tetrafluoro-1,4-benzenediamine (9CI) (CA INDEX NAME)

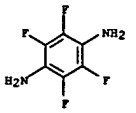
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

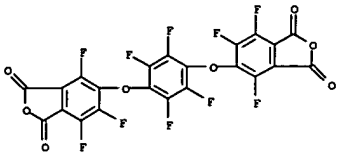
CRN 1198-64-7
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

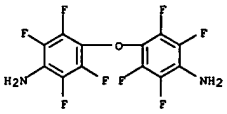
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O

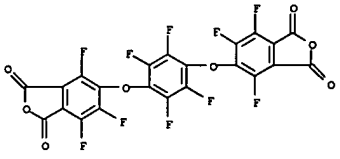


RN 143376-24-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-thiobis[2,3,5,6-

tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

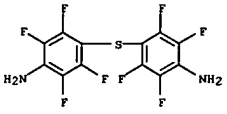
CM 1

CRN 143363-91-1
CMF C22 F10 O8

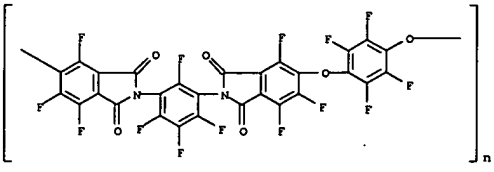


CM 2

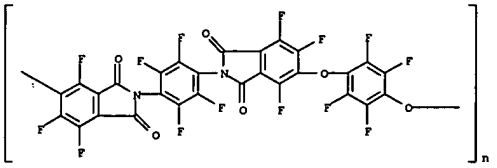
CRN 61907-46-8
CMF C12 H4 F8 N2 S



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

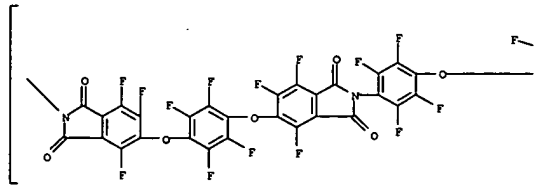


RN 143433-46-9 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

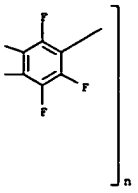


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

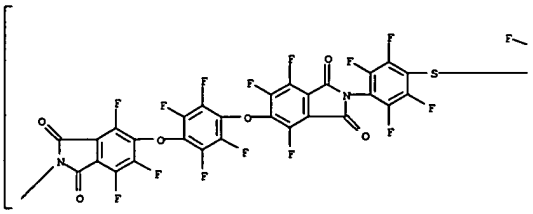


PAGE 1-B

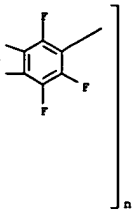


RN 143433-48-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)thio(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



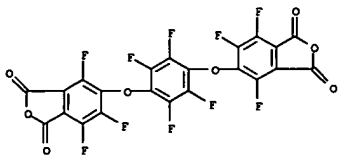
PAGE 1-B



RN 289650-74-4 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

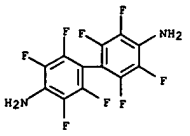
CM 1

CRN 143363-91-1
CMF C22 F10 O8



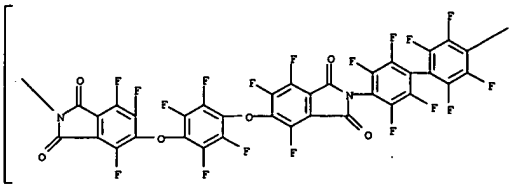
CM 2

CRN 1038-66-0
CMF C12 H4 F8 N2



RN 289650-76-6 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS

L56 ANSWER 31 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The lattice is manufactured by irradiating a fluorinated polyimide optical waveguide with x-ray via a x-ray mask having a desirable diffraction lattice pattern to form a region with periodically changed refractive index and a diffraction lattice region with periodically changed refractive index and a waveguide region with homogeneously changed refractive index. The lattice is manufactured by x-ray radiation in a simple process.

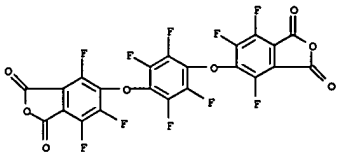
ACCESSION NUMBER: 1999:518975 CAPLUS
DOCUMENT NUMBER: 131:191675
TITLE: Formation method of fluorinated polyimide-based optical waveguide diffraction lattice
INVENTOR(S): Tamamura, Toshiaki; Ishii, Tetsuyoshi; Kobayashi, Junya; Maruno, Toru
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11223740	A2	19990817	JP 1998-24152	19980205
PRIORITY APPLN. INFO.:			JP 1998-24152	19980205

IT **143376-21-0P**
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(manufacture of fluorinated polyimide-based optical waveguide diffraction lattice)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

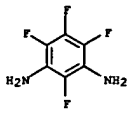
CRN 143363-91-1
CMF C22 F10 O8



L56 ANSWER 31 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

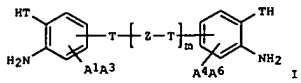
CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

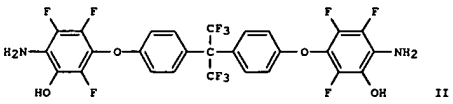


L56 ANSWER 32 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



I



II

AB The title compds. [I; A1-A6 = H, F, Me, OMe, CF3, OCF3, etc.; ≥1 of A1-A6 contains F or F-containing group; T = O, S; Z = (un)substituted (hetero)arylene; m = 0, 1], useful, e.g., for the manufacture of polybenzoxazoles and other heat-resistant polymers, were prepared by (a) condensation of nitro compds. with alkali hydroxides or alkali hydrogen sulfides, or with dihydroxy- or dimercapto compds. HTZTH (T, Z as above) in the presence of a base, and (b) reduction of the intermediate bis-o-nitro(thio)phenols to their amino analogs. For example, adding 60 g K2CO3 in portions to a solution of 33.6 g 4-HOC6H4C(CF3)2C6H4OH-4' and 42.6 g C6F5OH in 400 mL DMSO, stirring the mixture for 24 h at ambient temperature, heating for 6 h at 80°, adding 10 g KHCO3 and heating the whole for addnl. 18 h gave 91% 2,2-bis[4-(4-nitro-3-hydroxy-2,5,6-trifluorophenoxy)phenyl]hexafluoropropane. Reduction of the latter in 1:1 EtOAc/THF at 1 bar H in the presence of Pd/C gave 93 % of the title compound II.

ACCESSION NUMBER: 1999:236983 CAPLUS
DOCUMENT NUMBER: 130:267209
TITLE: Preparation of bis-o-amino(thio)phenols
INVENTOR(S): Sezi, Recai; Keitmann, Michael
PATENT ASSIGNEE(S): Siemens Aktiengesellschaft, Germany
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

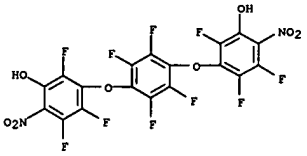
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 906903	A2	19990407	EP 1998-117341	19980912
EP 906903	A3	19990414		

L56 ANSWER 32 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

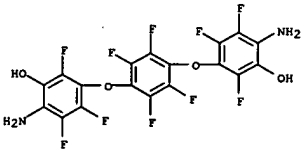
EP 906903	B1	20011212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11158129	A2	19990615	JP 1998-270392	19980924
US 6150558	A	20001121	US 1998-161144	19980924
PRIORITY APPLN. INFO.:			DE 1997-19742195	A 19970924

OTHER SOURCE(S): MARPAT 130:267209

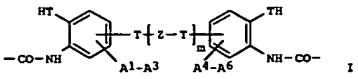
IT **222294-75-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn and reduction; preparation of bis-o-amino(thio)phenols)
RN 222294-75-9 CAPLUS
CN Phenol, 3,3'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,4,5-trifluoro-6-nitro- (9CI) (CA INDEX NAME)



IT **222294-71-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bis-o-amino(thio)phenols)
RN 222294-71-5 CAPLUS
CN Phenol, 3,3'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[6-amino-2,4,5-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 33 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The title precursors, having the partial structure I (A1-6 = H, F, Me, CF3, OMe, OCF3, Et, C2F5, OEt, OC2F5; T = O or S; Z = aromatic or heterocyclic group; m = 0 or 1), are soluble in organic solvents or in aqueous alkalies free from metal ions, suitable for use in photosensitive compns., and can be spin-coated. Heating benzyl 5-hydroxy-2-nitrophenyl ether 0.1, C6F5C6F5 0.05, and K2CO3 0.22 mol in DMSO at 100° for 4 h gave 4,4'-bis[3-(benzyloxy)-4-nitro]octafluorobiphenyl, hydrogenation of which over Pd/C in THF-EtOAc gave 4,4'-bis(4-amino-3-hydroxyphenoxy)octafluorobiphenyl (II). Polymerization of 0.1 mol II with 0.1 mol 4,4'-oxydibenzoyl chloride in butyrolactone containing pyridine at 10° to room temperature gave a polymer (soluble in a variety of organic solvents an an aqueous alkaline developer), cyclization of which at 350° for 1 h gave a polybenzoxazole with moisture uptake (24 h, 76% relative humidity) 0.84% and weight loss in TGA 1% at 480°.

ACCESSION NUMBER: 1999:219825 CAPLUS
DOCUMENT NUMBER: 130:282476
TITLE: Precursors for polybenzoxazoles and polybenzothiazoles
INVENTOR(S): Sezi, Recai; Schmid, Gunter; Keitmann, Michael
PATENT ASSIGNEE(S): Siemens Aktiengesellschaft, Germany
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

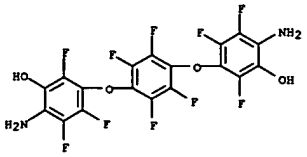
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 905169	A2	19990331	EP 1998-117333	19980912
EP 905169	A3	20000112		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11171994	A2	19990629	JP 1998-270388	19980924
US 6153350	A	20001128	US 1998-161148	19980925
PRIORITY APPLN. INFO.:			DE 1997-19742132 A	19970924

IT **222612-40-0P 222612-41-1P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(precursors for polybenzoxazoles and polybenzothiazoles)
RN 222612-40-0 CAPLUS
CN Hexanedioyl dichloride, polymer with 3,3'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[6-amino-2,4,5-trifluorophenol] (9CI) (CA INDEX NAME)

L56 ANSWER 33 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

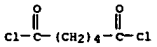
CM 1

CRN 222294-71-5
CMF C18 H6 F10 N2 O4



CM 2

CRN 111-50-2
CMF C6 H8 Cl2 O2



RN 222612-41-1 CAPLUS
CN Poly[oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,6-trifluoro-5-hydroxy-1,4-phenylene)imino(1,6-dioxo-1,6-hexanediyl)imino(2,3,5-trifluoro-6-hydroxy-1,4-phenylene)] (9CI) (CA INDEX NAME)

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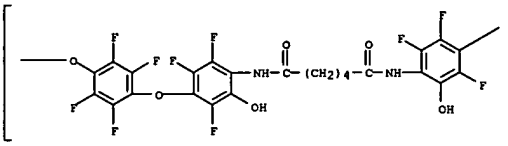

L56 ANSWER 33 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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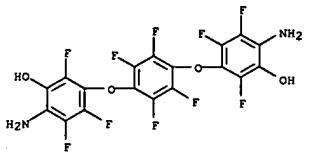
IT **222294-71-5P**
RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)
RN 222294-71-5 CAPLUS
CN Phenol, 3,3'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[6-amino-2,4,5-trifluoro- (9CI) (CA INDEX NAME)

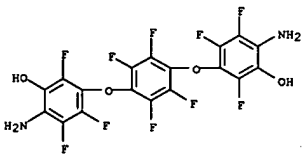


IT **222612-40-0DP**, cyclized **222612-41-1DP**, cyclized
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(preparation of)
RN 222612-40-0 CAPLUS
CN Hexanedioyl dichloride, polymer with 3,3'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[6-amino-2,4,5-trifluorophenol] (9CI) (CA INDEX NAME)

CM 1

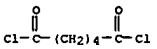
CRN 222294-71-5
CMF C18 H6 F10 N2 O4

L56 ANSWER 33 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



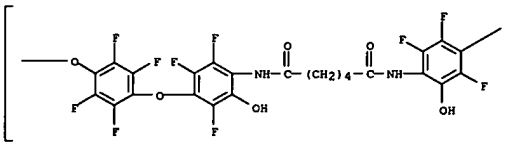
CM 2

CRN 111-50-2
CMF C6 H8 Cl2 O2



RN 222612-41-1 CAPLUS
CN Poly[oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,6-trifluoro-5-hydroxy-1,4-phenylene)imino(1,6-dioxo-1,6-hexanediyl)imino(2,3,5-trifluoro-6-hydroxy-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 33 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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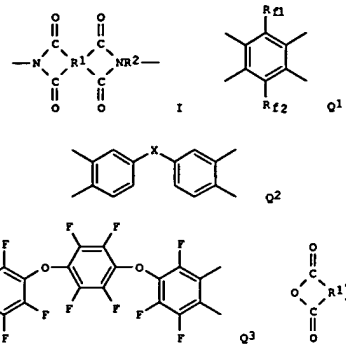
L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB The films, useful for printed circuit boards and optical waveguides, comprise polyimides with repeating unit I [R1 = tetravalent organic groups from Q1-3 (Rf1, Rf2 = H, F, or CF3; X = C(CF3)2, CO, O, SO2, single bond); R2 = F-containing arylenes). The films are prepared by polymerization of corresponding tetracarboxylic dianhydride with R2(NH2)2 (R2 = the same as above) in organic solvents, imidation, and removal of solvents. Thus, pyromellitic dianhydride was polymerized with equimolar 2,2'-bis(trifluoromethyl)-4,4'- diaminobiphenyl at room temperature in N,N-dimethylacetamide to give a polyamic acid solution, which was applied on an Al substrate and cured at 70-350° and immersed in 10% HCl to give a water-repellent polyimide film showing thermal decomposition temperature 610° and water contact angle 74.6°.

ACCESSION NUMBER: 1999:65363 CAPLUS
DOCUMENT NUMBER: 130:183528
TITLE: Fluorine-containing polyimide films with excellent water repellency and heat resistance and their preparation
INVENTOR(S): Matsuura, Toru; Sasaki, Shigekuni; Kobayashi, Shogo
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

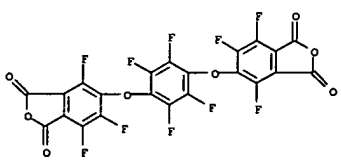
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11021350	A2	19990126	JP 1997-187252	19970630
PRIORITY APPLN. INFO.:			JP 1997-187252	19970630

IT **143376-21-0P 143376-23-2P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) ether copolymer **143376-24-3P 143433-45-8P 143433-47-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) ether copolymer, sru **143433-48-1P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) sulfide copolymer, sru **148362-03-2P 148362-06-5P 148446-36-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl copolymer **148446-40-6P 205451-28-1P 220592-84-7P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorine-containing polyimide films with excellent water repellency and heat resistance for elec. or optical uses)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

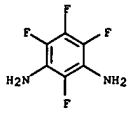
CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

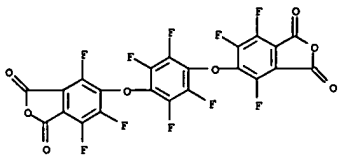
L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

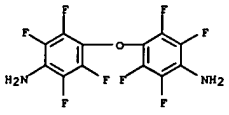
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

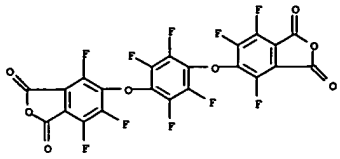
CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143376-24-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-thiobis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

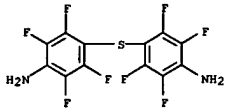
L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CM 1

CRN 143363-91-1
CMF C22 F10 O8

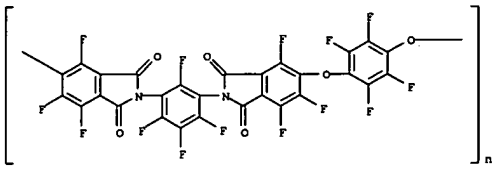


CM 2

CRN 61907-46-8
CMF C12 H4 F8 N2 S



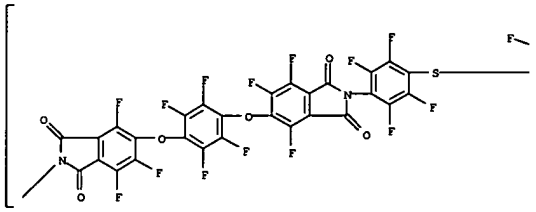
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 143433-47-0 CAPLUS

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



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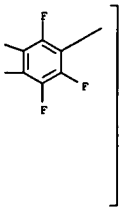

RN 148362-03-2 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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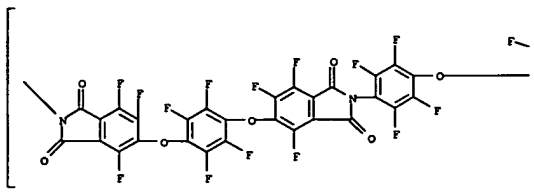
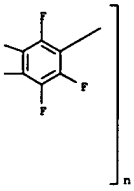


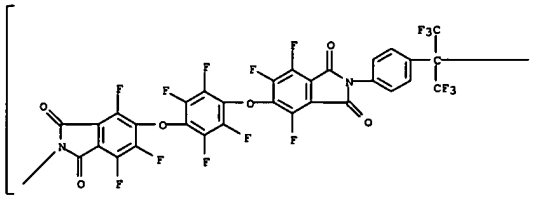
PAGE 1-B



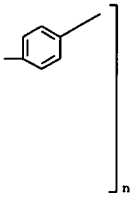
RN 143433-48-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)thio(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



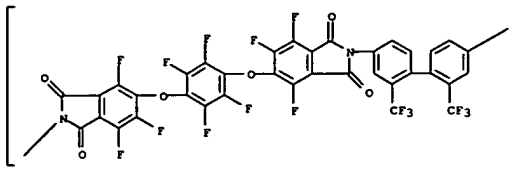
PAGE 1-B



RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

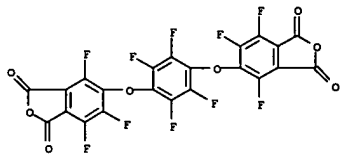


PAGE 1-B

RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

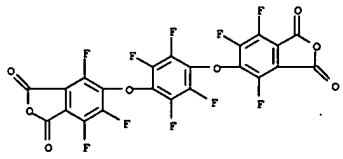
CRN 143363-91-1
CMF C22 F10 O8



L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenyleneoxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

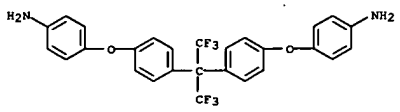
CM 1

CRN 143363-91-1
CMF C22 F10 O8



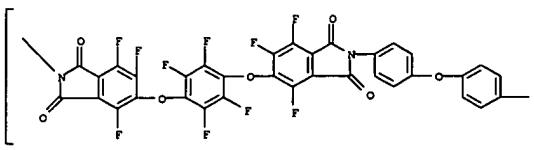
CM 2

CRN 69563-88-8
CMF C27 H20 F6 N2 O2



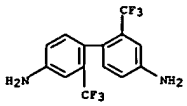
RN 220592-84-7 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CM 2

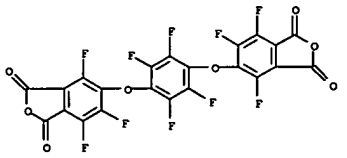
CRN 341-58-2
CMF C14 H10 F6 N2



RN 148446-40-6 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzenamine] (9CI) (CA INDEX NAME)

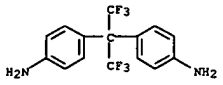
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

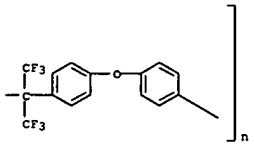
CRN 1095-78-9
CMF C15 H12 F6 N2



RN 205451-28-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-

L56 ANSWER 34 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 35 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The array comprises the cores and the claddings employing fluoropolyimides and thermooptical phase shifters.

ACCESSION NUMBER: 1998:811477 CAPLUS
DOCUMENT NUMBER: 130:102659
TITLE: Wavelength modulating waveguide matrix array
INVENTOR(S): Kobayashi, Junya; Maruno, Toru; Hirata, Yasuoki; Inoue, Yasuyuki; Sasaki, Shigekuni; Matsuura, Toru
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10332959	A2	19981218	JP 1997-146806	19970604

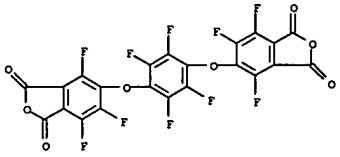
PRIORITY APPLN. INFO.: JP 1997-146806 19970604

IT **143376-21-0**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-tetrafluoro-m-phenylenediamine copolymer
143433-45-8, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-tetrafluoro-m-phenylenediamine copolymer, polyimide, sru
219142-03-7, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-tetrafluoro-m-phenylenediamine-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-4,4'-oxydianiline copolymer
RL: DEV (Device component use); USES (Uses)
(wavelength modulating waveguide matrix array)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

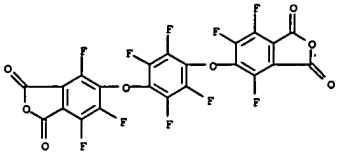
CRN 143363-91-1
CMF C22 F10 O8



CM 2

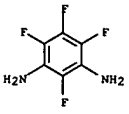
CRN 1198-63-6

L56 ANSWER 35 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



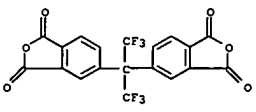
CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



CM 3

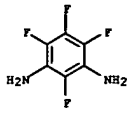
CRN 1107-00-2
CMF C19 H6 F6 O6



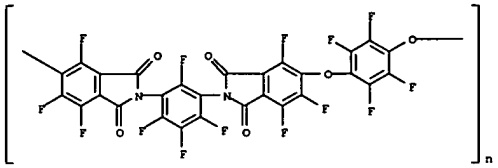
CM 4

CRN 101-80-4
CMF C12 H12 N2 O

L56 ANSWER 35 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CMF C6 H4 F4 N2



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

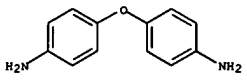


RN 219142-03-7 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine], 2,4,5,6-tetrafluoro-1,3-benzenediamine and 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 35 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 36 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Fluoropolymer-polyether-polyketones were obtained by homopolycondensation of 4-hydroxy-4'-(pentafluorobenzoyl)diphenyl ether and by copolycondensation of 4,4'-bis(pentafluorobenzoyl)diphenyl ether with benzenediols or bisphenols. The polymers have very good heat resistance, with 10% weight loss temps. ≥500°.

ACCESSION NUMBER: 1998:532324 CAPLUS
DOCUMENT NUMBER: 129:260978
TITLE: New polymers derived from 2,3,4,5,6-pentafluorobenzoic acid
AUTHOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu; Sakaguchi, Yoshimitu
CORPORATE SOURCE: Faculty of Environmental Science and Technology, Okayama University, Okayama, 700-8530, Japan
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 790-791
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **213693-15-3P**, 4,4'-Bis(pentafluorobenzoyl)diphenyl ether-hydroquinone copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thermally stable fluoropolymer-polyether-polyketones)

RN 213693-15-3 CAPLUS

CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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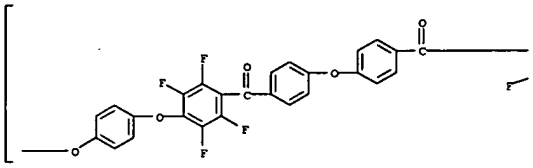

L56 ANSWER 36 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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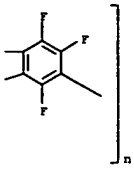


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 37 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

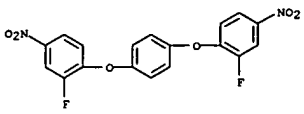
AB A series of bis(ether amines), primarily 1,2-bis(4-aminophenoxy)benzenes but including 1,3- and 1,4-bis(4-aminophenoxy)benzenes, with fluoro and alkyl substituents were synthesized. These diamines were prepared by F displacement with 4-FC6H4NO2 or its derivs., or NO2 displacement with 1,4-C6H4(NO2)2, and various phenylenediols and their alkyl or fluoro derivs. The resulting bis(ether nitro) compds. were reduced to the corresponding bis(ether amines).

ACCESSION NUMBER: 1998:376601 CAPLUS
DOCUMENT NUMBER: 129:135942
TITLE: Methyl- and fluoro-substituted bis(4-aminophenoxy)benzenes. A convenient method of synthesis
AUTHOR(S): Eastmond, G. C.; Paprotny, J.
CORPORATE SOURCE: Donnan Laboratories, University Liverpool, Liverpool, L69 7ZD, UK
SOURCE: Synthesis (1998), (6), 894-898
CODEN: SYNTBF; ISSN: 0039-7881
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:135942

IT **210492-55-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy]benzenamines)

RN 210492-55-0 CAPLUS

CN Benzene, 1,4-bis(2-fluoro-4-nitrophenoxy)- (9CI) (CA INDEX NAME)

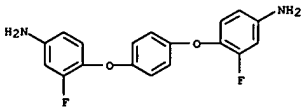


IT **210492-57-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of methylated and fluorinated [(aminophenoxy)phenoxy]benzenamines)

RN 210492-57-2 CAPLUS

CN Benzenamine, 4,4'-[1,4-phenylenebis(oxy)]bis[3-fluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 37 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 38 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB A graded-refractive-index optical plastic material is composed of (a) an amorphous fluoropolymer which substantially has no C-H bond, e.g., a F-containing polyether, aromatic polyester, aromatic polycarbonate, or polyimide, and (b) at least one material which differs from the fluoropolymer in refractive index by at least 0.001, and the material (b) is distributed in the fluoropolymer so as to have a concentration gradient and a continuously varying refractive index in a specific direction. The optical plastic has both high transparency and heat resistance as well as humidity, chemical, and flame resistance, and provides an optical fiber or lens with a low loss for optical communication over short distances. Thus, a perfluoropolyimide (I), prepared from 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene anhydride and bis(2,3,5,6-tetrafluoro-4-aminophenyl)ether, and 15 phr N-pentafluorophenyldichloromaleimide were dissolved in hexafluoroisopropanol (II) (mixture viscosity 3 x 104), and I alone was dissolved in II (viscosity 2 x 104). The 2 mixts. were extruded through a double nozzle to give a fiber-like product having the first mixture on the inside and the latter mixture on the outside, and the II removed to give a title fiber showing light transmission loss at 650-1600 nm and no substantial change after heating 100 h at 150°.

ACCESSION NUMBER: 1998:372628 CAPLUS
DOCUMENT NUMBER: 129:42058
TITLE: Graded-refractive-index optical perfluoropolymer plastic material, production thereof, and optical products with low transmission loss therefrom
INVENTOR(S): Koike, Yasuhiro; Naritomi, Masaki; Murofushi, Hidenobu; Sugiyama, Norihide
PATENT ASSIGNEE(S): Koike, Yasuhiro, Japan
SOURCE: U.S., 14 pp., Cont.-in-part of U. S. Ser. No. 553,547.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5760139	A	19980602	US 1996-659867	19960607
EP 1249715	A2	20021016	EP 2002-15713	19950412
EP 1249715	A3	20030102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 2002311254	A2	20021023	JP 2002-8228	19950412
JP 08337723	A2	19961224	JP 1995-143710	19950609
JP 3419960	B2	20030623		
US 5783636	A	19980721	US 1995-553547	19951215
US 6271312	B1	20010807	US 1997-984121	19971203

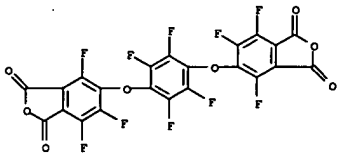
PRIORITY APPLN. INFO.: JP 1994-78828 A 19940418
JP 1995-143710 A 19950609
US 1995-553547 A2 19951215
EP 1995-915307 A3 19950412
JP 1995-86802 A3 19950412
WO 1995-JP715 W 19950412

IT 143376-23-2P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene anhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl)ether copolymer 143433-47-0P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene anhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl)ether copolymer,sru 208453-74-1P
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(heat-shrinkable sheath; graded-refractive-index optical perfluoropolymer plastic material, production thereof, and optical products with low transmission loss therefrom)

RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

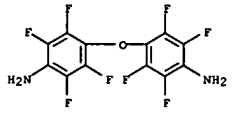
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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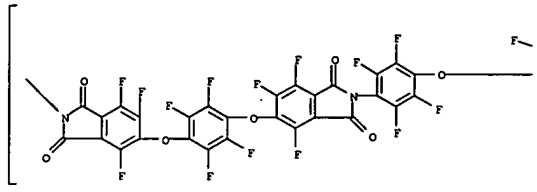
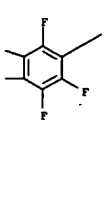


PAGE 1-B



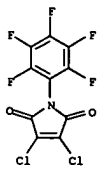
RN 208453-74-1 CAPLUS
CN 1H-Pyrrole-2,5-dione, 3,4-dichloro-1-(pentafluorophenyl)-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] and [illegible]-tetrafluoro-

L56 ANSWER 38 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione], graft (9CI) (CA INDEX NAME)

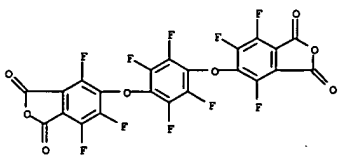
CM 1

CRN 186958-58-7
CMF C10 C12 F5 N O2



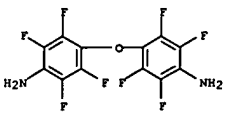
CM 2

CRN 143363-91-1
CMF C22 F10 O8



CM 3

CRN 20115-19-9
CMF C12 H4 F8 N2 O

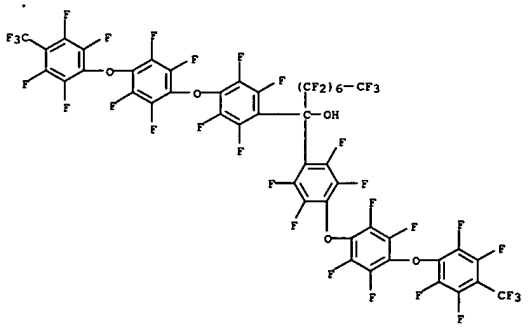


L56 ANSWER 38 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L56 ANSWER 39 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Selected perfluorinated tertiary alcs. were reacted with p-toluenesulfonyl
chloride to form their p-toluenesulfonyl esters C6F5(CF3)2COSO2C6H4CH3 (I), CF3C6F4OC6F4(C3F7)(C8F17)COSO2C6H4CH3 and (CF3C6F4OC6F4)2(C7F15)COSO2C6H4CH3. The absolute configuration of I is established by X-ray diffraction.
ACCESSION NUMBER: 1998:210377 CAPLUS
DOCUMENT NUMBER: 128:321424
TITLE: p-Toluenesulfonyl esters of perfluorinated tertiary alcohols: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3
AUTHOR(S): Krumm, Burkhard; Vij, Ashwani; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Dep. of Chem., Univ. of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Journal of Fluorine Chemistry (1998), 89(1), 19-22
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 128:321424
IT 207233-54-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3)
RN 207233-54-3 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)

L56 ANSWER 39 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 207233-53-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3)
RN 207233-53-2 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]-, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

L56 ANSWER 39 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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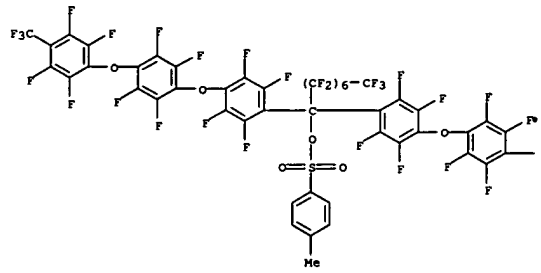
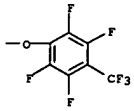


PAGE 1-B



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L56 ANSWER 40 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Title linear polyethers consist of (A) bisphenol units having 2 benzene rings, each of which is directly linked to O and (B) aryl-type units for linking the bisphenol units. The polymers are useful as precursors of intermediate elec. insulator films in semiconductor devices and the resulting films can be subjected to high temperature reactive ion etching and they leave no Si oxide residue after etching. The polyethers are manufactured by polymerizing aromatic monomers corresponding to the unit A and compds. having ≥1 benzene rings which are directly linked to ≥2 halogens in the presence of basic catalysts. Thus, 28.6 g 2,2'-binaphthol and 33.4 g perfluorobiphenyl were polymerized in N,N-dimethylacetoamide in the presence of K2CO3 at 80° under N to give title polymer, 5 g of which was dissolved in 50 mL 2-methoxyethyl acetate, spin-coated on a Si substrate, heated in air at 200° for 30 min, and baked at 360° in N for 1 h to give an elec. insulator film having sp. dielec. constant 2.70, glass-transition temperature 250°, and no weight degradation at 400-500°.

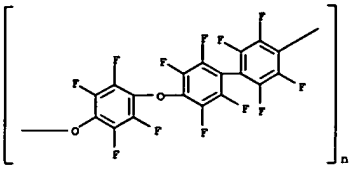
ACCESSION NUMBER: 1998:176533 CAPLUS
DOCUMENT NUMBER: 128:244969
TITLE: Silicon-free bisphenol-type polyethers as electric insulator film precursors and their manufacture
INVENTOR(S): Ito, Toshio; Kosuga, Maki
PATENT ASSIGNEE(S): Oki Electric Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10074751	A2	19980317	JP 1996-229893	19960830
JP 3195248	B2	20010806		
PRIORITY APPLN. INFO.:			JP 1996-229893	19960830

IT **204910-65-6P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silicon-free bisphenol-type polyethers as precursors for elec. insulators in semiconductor devices)

RN 204910-65-6 CAPLUS
CN Poly[oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)] (9CI) (CA INDEX NAME)

L56 ANSWER 40 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 41 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The devices consist of direction coupler switches or Y-splitters and Mach-Zehnder optical modulator where the coupler switches are of core-sheath type and have the core or/and the sheath made from fluoro polyimide resins for improving resistance to heat and moisture while having good transmission rate. In an example, a fluoro polyimide resin was obtained from a 6:4 mixture of 2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl copolymer and 2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-4,4'-oxydianiline copolymer.

ACCESSION NUMBER: 1998:163257 CAPLUS
DOCUMENT NUMBER: 128:276864
TITLE: Waveguide-type optical devices with low transmission loss and good resistance to heat and moisture
INVENTOR(S): Kobayashi, Junya; Maruno, Toru; Matsura, Toru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

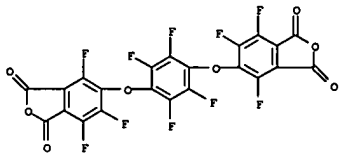
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10068829	A2	19980310	JP 1997-94360	19970331
PRIORITY APPLN. INFO.:			JP 1996-178683	19960620

IT **143376-21-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-tetrafluoro-m-phenylenediamine copolymer
143376-23-2P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) ether copolymer
143433-45-8P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-tetrafluoro-m-phenylenediamine copolymer, polyimide sru
143433-47-0P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) ether copolymer, polyimide sru **148362-03-2P**, 4,4'-2,2-Bis(4-aminophenyl)hexafluoropropane-1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride copolymer, polyimide sru **148362-05-4P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-4,4'-oxydianiline copolymer, polyimide sru **148362-06-5P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl copolymer, polyimide sru **148446-36-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl copolymer **148446-37-1P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-4,4'-oxydianiline copolymer **188412-73-9P**, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride copolymer **188412-75-1P**, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride copolymer, polyimide sru **205451-27-0P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-3,4'-oxydianiline copolymer **205451-28-1P**, 4,4'-2,2-Bis(4-aminophenyl)hexafluoropropane-1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride copolymer
RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); PREP (Preparation); USES (Uses)
(resins for manuf. of waveguide-type optical devices with low transmission loss and good resistance to heat and moisture)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

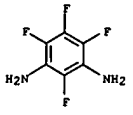
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

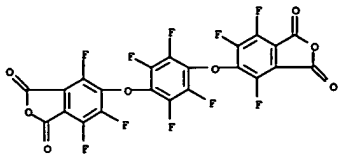


RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

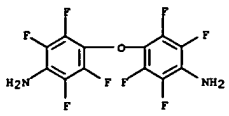
CRN 143363-91-1

CMF C22 F10 O8

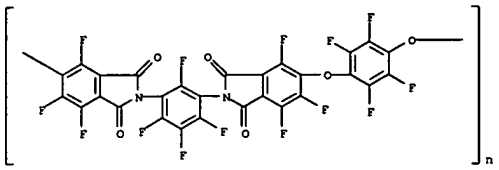


CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-

1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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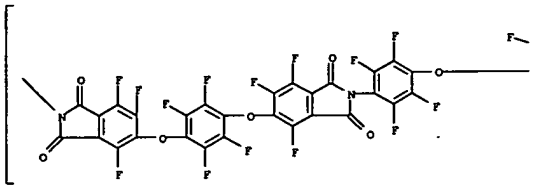

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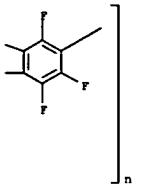
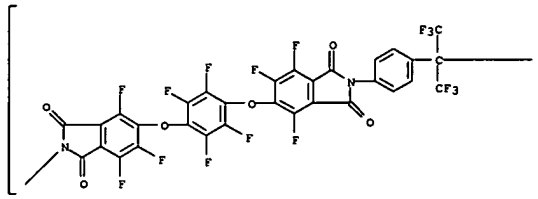


RN 148362-03-2 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



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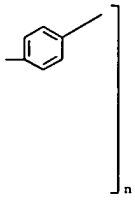
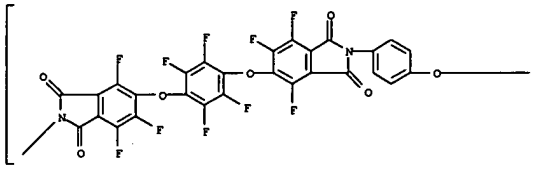


RN 148362-05-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



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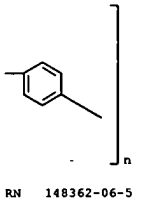
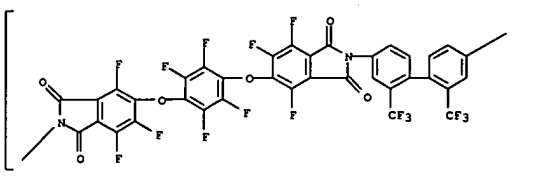


RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

PAGE 1-A

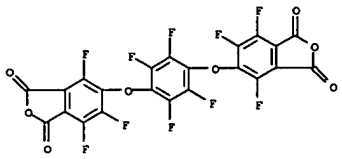


PAGE 1-B

RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

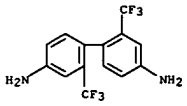
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 341-58-2
CMF C14 H10 F6 N2

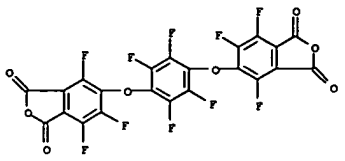


RN 148446-37-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-

phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

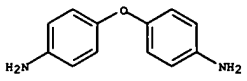
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

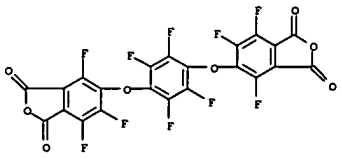
CRN 101-80-4
CMF C12 H12 N2 O



RN 188412-73-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

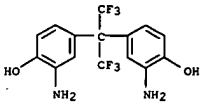
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2



RN 188412-75-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (9CI) (CA INDEX NAME)

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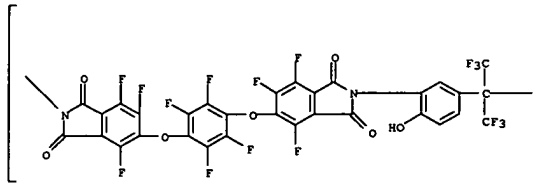
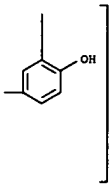


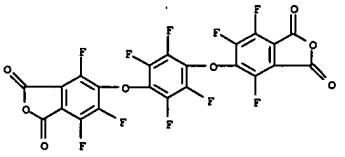
PAGE 1-B



RN 205451-27-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 3-(4-aminophenoxy)benzenamine (9CI) (CA INDEX NAME)

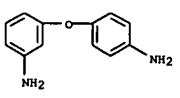
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 2657-87-6
CMF C12 H12 N2 O

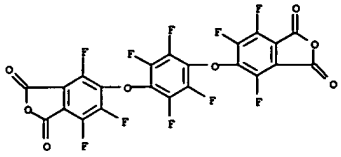


RN 205451-28-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-

L56 ANSWER 41 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenyleneoxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

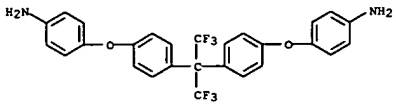
CM 1

CRN 143363-91-1
CMF C22 F10 O8

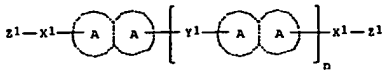


CM 2

CRN 69563-88-8
CMF C27 H20 F6 N2 O2



L56 ANSWER 42 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB There is provided a low-birefringent organic optical component comprising a
polymer prepared by polymerizing a racemic mixture of the monomer with an asym.
spiro ring represented by general formula I wherein ring A represents a monocyclic or polycyclic organic group, wherein two ring As are mutually bound each other via a spiro bond to form a spiro ring which has a mol. asym. structure; n is an integer of 0 to 10; X1 and Y2 are binding groups;
Z1 is a polymerization-active group. The component has excellent transparency,
mech. strength and heat resistance and useful in manufacture of optical disks
and optical lenses and prisms.

ACCESSION NUMBER: 1998:147152 CAPLUS
DOCUMENT NUMBER: 128:210916
TITLE: Optical component and spirobiindan polymer therefor
INVENTOR(S): Otsuji, Atsuo; Takuma, Keisuke; Suzuki, Rihoko; Urakami, Tatsuhiro; Motoshima, Toshihiro; Yamashita, Watura; Yoshimura, Tomomi; Shibuya, Atsushi; Sakata, Yoshihiro; Oikawa, Hideaki; Ohta, Masahiro; Ajioka, Masanobu; Takagi, Masatoshi; et al.
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: Eur. Pat. Appl., 147 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 822545	A2	19980204	EP 1997-305763	19970731
EP 822545	A3	19980624		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6080833	A	20000627	US 1997-896008	19970717
JP 11071316	A2	19990316	JP 1997-196009	19970722
CN 1175600	A	19980311	CN 1997-120511	19970731
CN 1093147	B	20021023		

PRIORITY APPLN. INFO.:

JP 1996-201825	A	19960731
JP 1996-204614	A	19960802
JP 1996-204615	A	19960802
JP 1996-331831	A	19961212

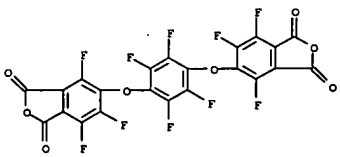
L56 ANSWER 42 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

JP 1996-331832	A	19961212
JP 1996-331833	A	19961212
JP 1997-138355	A	19970528
JP 1997-138356	A	19970528
JP 1997-138357	A	19970528
JP 1997-138358	A	19970528
JP 1997-138359	A	19970528
JP 1997-159421	A	19970617
JP 1997-159422	A	19970617
JP 1997-159423	A	19970617
JP 1997-159424	A	19970617

IT 203712-59-8P
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as material for optical disks and lenses)
RN 203712-59-8 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[(2,2',3,3'-tetrahydro-3,3,3',3'-tetramethyl-1,1'-spirobi[1H-indene]-6,6'-diyl]bis(oxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

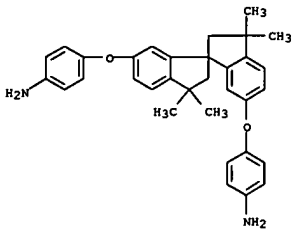
CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 112147-64-5
CMF C33 H34 N2 O2

L56 ANSWER 42 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 43 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Mixing a resin and a certain phthalocyanine compound having the ability to absorb near IR rays, provides a resin composition which is useful as a heat radiation-shielding material which is semi-transparent or transparent for visible light but blocks heat rays. C black may also be added to enhance the heat-shielding effect. Thus, polycarbonate containing 0.003% VOPc(BuNH)8F8 [Pc = phthalocyanine; substituent octakis(butylamino)octafluorophthalocyanaine] was molded into a film having transmittance and heat transmittance (JIS R-3106) 78.9 and 62.4%; vs. 89.2 and 84.6, resp., for polycarbonate without the IR absorber.

ACCESSION NUMBER: 1998:79369 CAPLUS
DOCUMENT NUMBER: 128:141505
TITLE: Compositions for shields for heat radiation
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Japan
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 180,488, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5712332	A	19980127	US 1995-478739	19950607
PRIORITY APPLN. INFO.:			JP 1993-4326 A	19930113
			US 1994-180488 B2	19940112

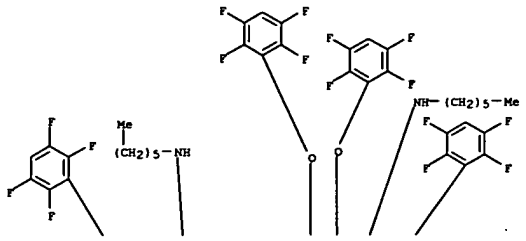
OTHER SOURCE(S): MARPAT 128:141505

IT **163464-84-4**
RL: MOA (Modifier or additive use); USES (Uses)
(polymer compns. containing certain phthalocyanines for shields for heat radiation)

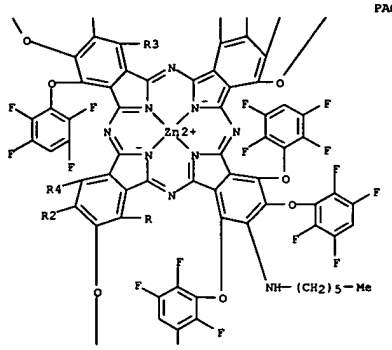
RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)-
(9CI) (CA INDEX NAME)

L56 ANSWER 43 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

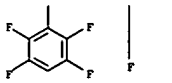


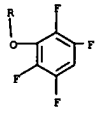
PAGE 2-A



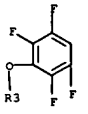
L56 ANSWER 43 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

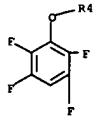
PAGE 3-A





PAGE 4-A





REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 44 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The title device utilizes a low operation voltage and shows good displaying quality for a long time period and excellent low energy consumption properties, wherein the device utilizes liquid crystals having a threshold voltage of ≤1.5 V and a F-containing polymer orientation layer.

ACCESSION NUMBER: 1997:736287 CAPLUS
DOCUMENT NUMBER: 128:28680
TITLE: Liquid crystal display device for handy information terminal
INVENTOR(S): Kawagoe, Jun; Ihara, Satoru; Ooaku, Hitoshi
PATENT ASSIGNEE(S): Optrex Corp., Japan
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

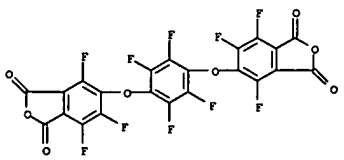
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19710698	A1	19971106	DE 1997-19710698	19970314
JP 09304776	A2	19971128	JP 1997-36601	19970220
US 5781263	A	19980714	US 1997-816895	19970313
PRIORITY APPLN. INFO.:			JP 1996-57954 A	19960314

IT **143376-23-2 143433-47-0**
RL: DEV (Device component use); USES (Uses)
(orientation layer of liquid crystal display device for handy information terminal)

RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

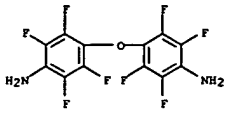
CM 1

CRN 143363-91-1
CMF C22 F10 O8



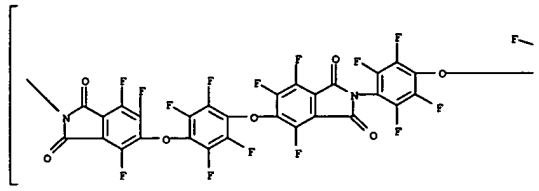
CM 2

L56 ANSWER 44 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 20115-19-9
CMF C12 H4 F8 N2 O

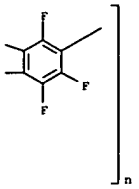


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

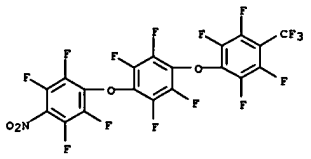


PAGE 1-B

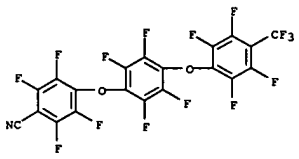


L56 ANSWER 45 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Reactions of 4'-CF3C6F4OC6F4Li, generated in situ, with elements of group 16 (S, Se, Te) lead to CF3C6F4OC6F4SH (2), (CF3C6F4OC6F4Se)2 (3), and (CF3C6F4OC6F3Te)2 (4)/(CF3C6F4OC6F3)2Te (4a). The phenol derivative CF3C6F4OC6F4OH (1) is obtained by reaction of CF3C6F4OC6F4Li with B(OMe)3/H2O2. The reaction of CF3C6F4OC6F4Li with trimethylsilyl chloride or trimethyltin chloride gives CF3C6F4OC6F4XMe3 (X = Si (5), Sn (6)). Oxidation of 2 in the presence of bromine results in the formation of (CF3C6F4OC6F4S)2 (7) and CF3C6F4OC6F4SO2Br (8). Mixed perfluoroaryloxo/thio ethers CF3C6F4OC6F4SC6F4R (R = NO2 (9), CN (10), CF3 (11)) and CF3C6F4OC6F4SC5F4N (12) are obtained upon reaction of 2 with excess C6F5R and pentafluoropyridine in the presence of K2CO3. With 4-C6F5OC6F4NO2, a mixture of (2-CF3C6F4OC6F4S)(4-C6F5O)C6F3NO2 (13) and 9 is formed. Reaction of excess 2 with C6F5R gives the 2,4,6-substituted benzenes (CF3C6F4OC6F4S)3C6F2R (R = NO2 (14), CN (15)). The , trimethylsilyl ether CF3C6F4OC6F4OSiMe3 (16) is prepared from the reaction of 1 with hexamethyldisilazane. 16 Is a convenient reagent for the preparation of the aryl ethers CF3C6F4OC6F4OC6F4R (R = NO2 (17), CN (18)) and CF3C6F4OC6F4OC5F4N (19) upon reaction with C6F5R and C5F5N. The secondary alcs. CF3C6F4OC6F4CH(C6H5)OH (20) and CF3C6F4OC6F4CH(C6F5)OH (21) are synthesized by the reactions of 5 with benzaldehyde and pentafluorobenzaldehyde in the presence of tetrabutylammonium fluoride as a catalyst. In the synthesis of 21 the byproduct CF3C6F4OC6F4CH(C6F5)OC6F4CHO is also formed and isolated.
ACCESSION NUMBER: 1997:667252 CAPLUS
DOCUMENT NUMBER: 127:293323
TITLE: Synthesis and Chemistry of CF3C6F4OC6F4 Group 14/16 Derivatives
AUTHOR(S): Krumm, Burkhard; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1997), 36(23), 5222-5230
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:293323
IT 197150-21-3P 197150-22-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 197150-21-3 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3-(2,3,5,6-tetrafluoro-4-nitrophenoxy)-6-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)

L56 ANSWER 45 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 197150-22-4 CAPLUS
CN Benzonitrile, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L56 ANSWER 46 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a heat-resistant polymer optical waveguide, suited for use in applications requiring higher degree of optical integration, wherein ≥3% of refractive index difference between the cladding and the core is achieved by selecting appropriate combination of polyimides for the cladding and the core. The core may be prepared from the polyimide having the structural repeating unit represented by I or II [R1 is represented by III, IV, and V; R2 = (p-C6H4)2O, (p-C6H4)2CH2, (p-C6H4)2SO2, and (m-C6H4)SO2]. The cladding may be prepared from the polyimide having the structural repeating unit represented by VI [R3 = 2,2'-bis(trifluorophenyl)biphenyl-4,4'-diyl, (p-C6H4)2C(CF3)2, (p-C6F4)2O, and pentafluorophenoxy phenyl-2,4-diyl].

ACCESSION NUMBER: 1997:633003 CAPLUS
DOCUMENT NUMBER: 127:339030
TITLE: Heat-resistant polymer optical waveguide and its production method
INVENTOR(S): Matsuura, Toru; Maruno, Toru; Kobayashi, Junya; Sakata, Tomomi; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09251113	A2	19970922	JP 1996-85964	19960315

PRIORITY APPLN. INFO.: JP 1996-85964 19960315

IT **143376-21-0P 143376-23-2P 143433-45-8P**
143433-47-0P, 1,4-Bis[3,4-dicarboxytrifluorophenoxy]tetrafluoroben zene dianhydride-bis[2,3,5,6-tetrafluoro-4-aminophenyl]ether copolymer,sru
148362-03-2P 148362-05-4P 148362-06-5P
148446-36-0P 148446-37-1P 148446-40-6P
188412-73-9P 188412-75-1P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(heat-resistant polymer optical waveguide and its production method)

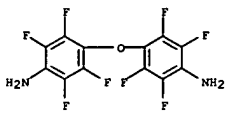
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

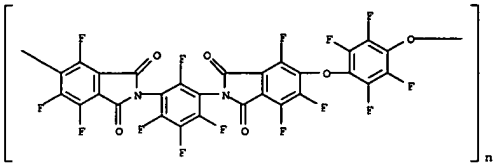
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 46 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 20115-19-9
CMF C12 H4 F8 N2 O

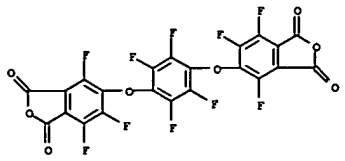


RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



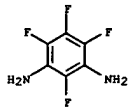
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 46 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

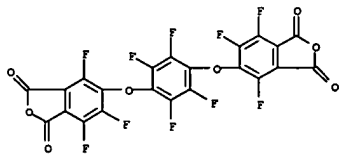
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

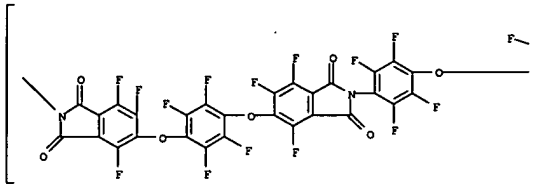
CRN 143363-91-1
CMF C22 F10 O8



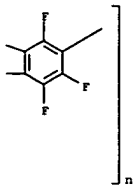
CM 2

L56 ANSWER 46 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

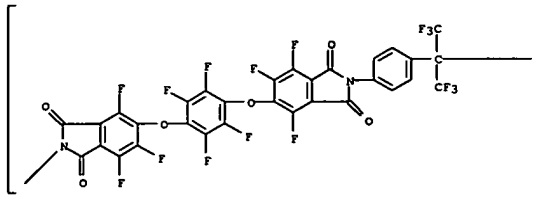


PAGE 1-B

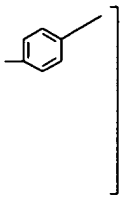


RN 148362-03-2 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

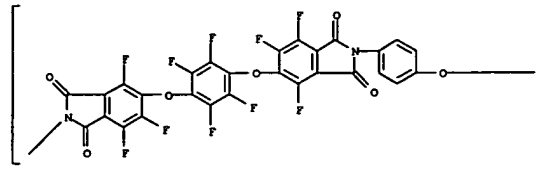


PAGE 1-B

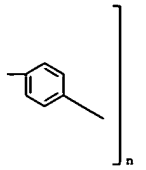


RN 148362-05-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

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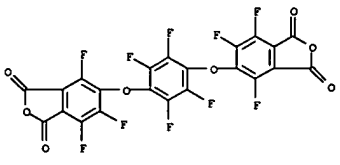
RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

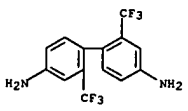
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 341-58-2
CMF C14 H10 F6 N2

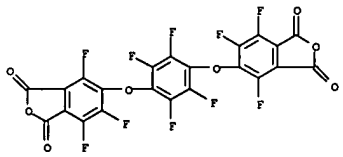


RN 148446-37-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-

phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

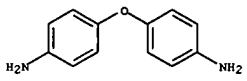
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

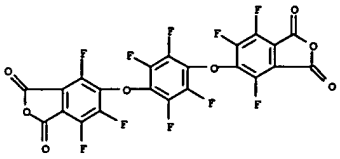
CRN 101-80-4
CMF C12 H12 N2 O



RN 148446-40-6 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzenamine] (9CI) (CA INDEX NAME)

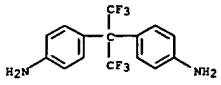
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

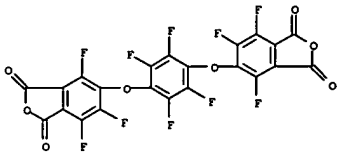
CRN 1095-78-9
CMF C15 H12 F6 N2



RN 188412-73-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

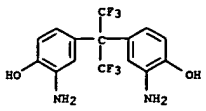
CM 1

CRN 143363-91-1
CMF C22 F10 O8



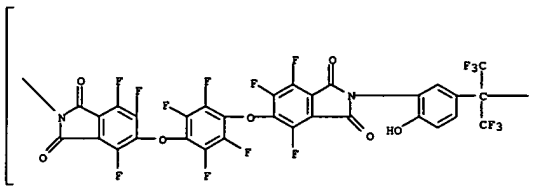
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

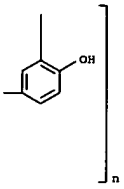


RN 188412-75-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (9CI) (CA INDEX NAME)

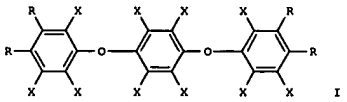
PAGE 1-A



PAGE 1-B



GI



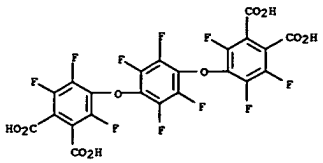
AB Phthalic acids I (R = CO2H; X = halo) are prepared by heating phthalonitriles I (R = cyano; X = halo) in acidic aqueous media, (A) dissolving the products in organic solvent-containing media, (B) separating the products, and (C) treating the isolated products in acidic aqueous media under heating. Then, the above processes A to C are repeated. ≥1 time(s). I (R = cyano, X = F) (10 g) was refluxed with aqueous H2SO4 for 6 h, diluted with H2O, filtered, and the crude product was dissolved in Me2CO. The solution was treated with H2O to give 10.8 g I (R = CO2H, X = F) (II) with purity 91.8%, which was refluxed with H2SO4 for 6 h and similarly treated. The process was repeated to give 9.8 g II with 99.2% purity.

ACCESSION NUMBER: 1997:377463 CAPLUS
DOCUMENT NUMBER: 127:33992
TITLE: Preparation of phthalic acids as intermediates for polyimides from phthalonitriles
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

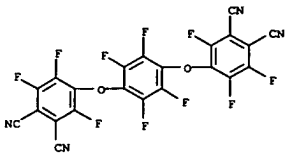
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110785	A2	19970428	JP 1995-266007	19951013
PRIORITY APPLN. INFO.:			JP 1995-266007	19951013

OTHER SOURCE(S): MARPAT 127:33992
IT **143363-92-2P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation and purification of phthalic acids as intermediates for polyimides by acid hydrolysis of phthalonitriles)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

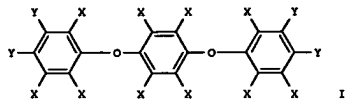
L56 ANSWER 47 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 143376-50-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and purification of phthalic acids as intermediates for polyimides
by acid hydrolysis of phthalonitriles)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 48 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB Title compds. I (X = halo; Y = CO2H) are prepared by heating I (Y = cyano)
in acidic aqueous media, heating the product-containing media with alkaline
substances, and separating I (Y = CO2H) from the media by mixing with acidic
substances. An aqueous solution containing 10 g I (X = F, Y = cyano) and H2SO4 was
refluxed for 6 h, mixing with H2O and NaOH (pH 11.8), refluxed for 1 h, and mixed with aqueous H2SO4 to give 10.8 g I (X = F, Y = CO2H) with 99.2%
purity.

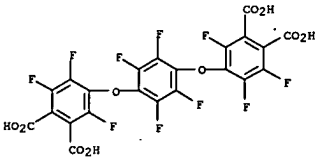
ACCESSION NUMBER: 1997:377462 CAPLUS
DOCUMENT NUMBER: 127:33986
TITLE: Preparation of phthalic acids as intermediates for polyimides
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110784	A2	19970428	JP 1995-266006	19951013
PRIORITY APPLN. INFO.:			JP 1995-266006	19951013

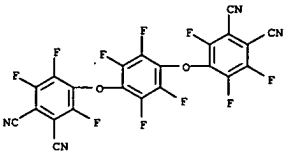
OTHER SOURCE(S): MARPAT 127:33986

IT 143363-92-2P
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis
of phthalonitriles and heating with alkalies)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 48 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 143376-50-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis
of phthalonitriles and heating with alkalies)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The invention relates to a polyimide optical waveguide comprising polyimide core and cladding layers fabricated on a substrate, wherein the nTE - nTM is ≤0.003 at 1.3 μm in both core and cladding layers for improving the polarization properties of the waveguide, where the nTE and nTM are the refractive indexes of the polyimide in the directions parallel and perpendicular to the substrate surface, resp.

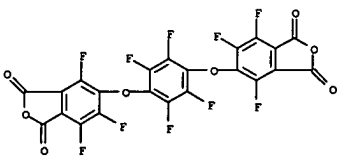
ACCESSION NUMBER: 1997:250663 CAPLUS
DOCUMENT NUMBER: 126:244642
TITLE: Polyimide optical waveguide
INVENTOR(S): Matsura, Tooru; Koshobu, Nobutake; Maruno, Tooru; Ando, Shinji; Sakata, Tomomi; Sasaki, Shigekuni; Kobayashi, Junya
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09021920	A2	19970121	JP 1995-194040	19950707
PRIORITY APPLN. INFO.:			JP 1995-194040	19950707

IT 143376-21-0 143376-23-2 143433-47-0
140362-05-4 140362-06-5 148446-36-0
148446-37-1 188412-73-9 188412-75-1
188442-26-4
RL: DEV (Device component use); USES (Uses)
(polyimide optical waveguide)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-
1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

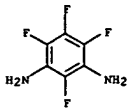
CRN 143363-91-1
CMF C22 F10 O8



CM 2

L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

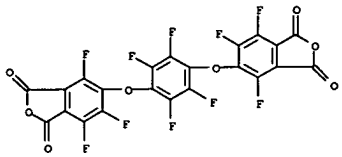
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

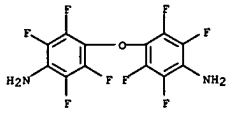
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-

L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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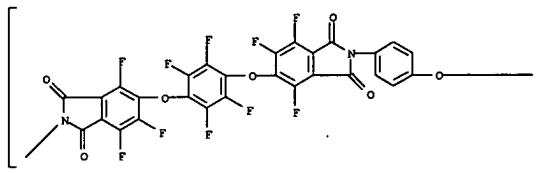
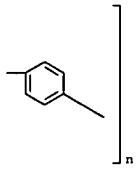
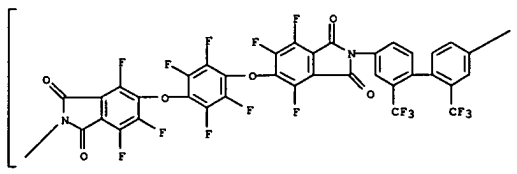


PAGE 1-B



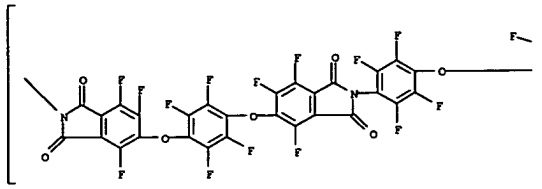
RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

PAGE 1-A

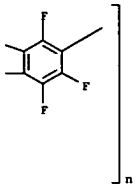


L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 148362-05-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

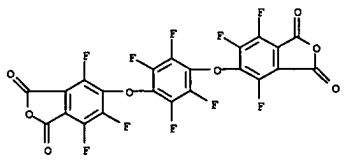
L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

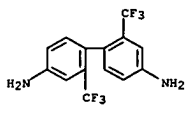
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 341-58-2
CMF C14 H10 F6 N2

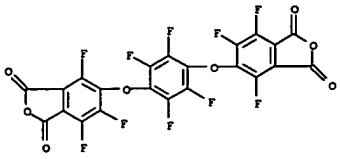


RN 148446-37-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-

L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

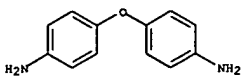
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 101-80-4
CMF C12 H12 N2 O

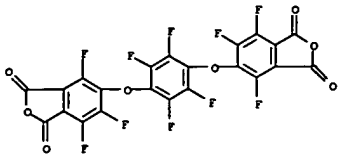


RN 188412-73-9 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

CM 1

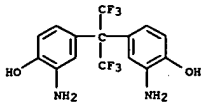
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2



RN 188412-75-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (9CI) (CA INDEX NAME)

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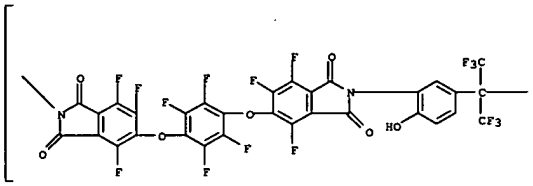
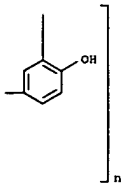


L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

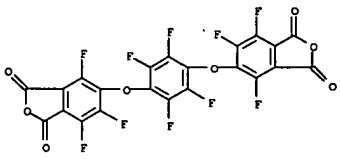
PAGE 1-B



RN 188442-26-4 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with ar,ar'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

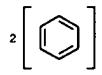
CRN 143363-91-1
CMF C22 F10 O8

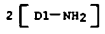


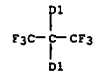
CM 2

CRN 30606-80-5
CMF C15 H12 F6 N2
CCI IDS

L56 ANSWER 49 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)







L56 ANSWER 50 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Moldings contain amorphous fluoropolymers such as fluoro polyethers, aromatic polyesters, aromatic carbonates, and polyimides containing no C-H bonds and ≥1 material which has refractive index difference ≥0.001 with the fluoropolymers and is distributed with a concentration gradient along a specified direction. Thus, optical fibers contained a perfluoro polyether triazine and 1,3-dibromotetrafluorobenzene and had n decreasing from the center to the periphery and optical transmission 380 dB/km at 780 nm and 250 dB/km at 1550 nm.

ACCESSION NUMBER: 1997:165106 CAPLUS
DOCUMENT NUMBER: 126:158497
TITLE: Graded-index optical resin materials
INVENTOR(S): Koike, Yasuhiro; Murofushi, Hidenobu; Sugyama, Tokuhide
PATENT ASSIGNEE(S): Koike Yasuhiro, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08337723	A2	19961224	JP 1995-143710	19950609
JP 3419960	B2	20030623		
US 5760139	A	19980602	US 1996-659867	19960607
PRIORITY APPLN. INFO.:			JP 1994-78828 A	19940418
			JP 1995-143710 A	19950609
			US 1995-553547 A2	19951215

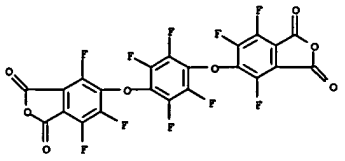
IT **143376-23-2 143433-47-0**
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(graded-index optical fibers containing amorphous fluoropolymers and additives)

RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

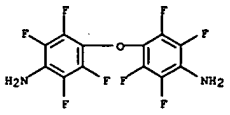
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 50 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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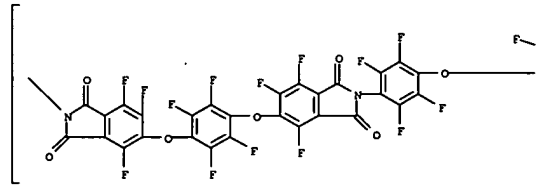
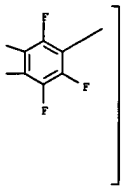


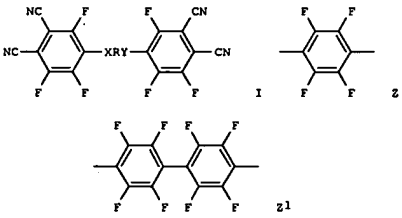
L56 ANSWER 50 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 51 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB The title bisphthalonitriles I (X, Y = O, S; R = Z, Z1), useful as intermediates for optical materials, circuit board materials, photosensitive materials, liquid crystals, etc., are prepared by treatment of 3,4,5,6-tetrafluorophthalonitrile (II) with HXRYH in organic solvents being slightly soluble in H2O in the presence of basic substances, followed by addition of H2O to the reaction products and separation of the organic layer. An AcOEt solution of tetrafluorohydroquinone was added dropwise to a mixture of II, KF, and AcOEt under reflux over 1 h, and the reaction mixture was further stirred under reflux for 8 h, cooled, and then washed with H2O to give 99% I (X = Y = O, R = Z).

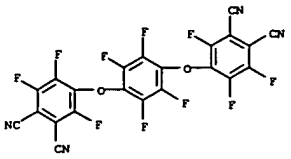
ACCESSION NUMBER: 1997:154684 CAPLUS
DOCUMENT NUMBER: 126:157295
TITLE: Preparation of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone or fluorodiphenol
INVENTOR(S): Okumura, Yasunori; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08333322	A2	19961217	JP 1995-143593	19950609
PRIORITY APPLN. INFO.:			JP 1995-143593	19950609

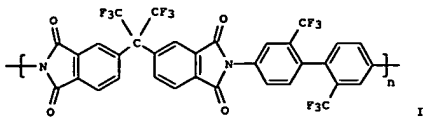
OTHER SOURCE(S): CASREACT 126:157295; MARPAT 126:157295

IT **143376-50-5P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

L56 ANSWER 51 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(Preparation)
(prepn. of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone, diphenol, or their sulfur analog using slightly
water-sol. solvents and basic substances)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 52 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



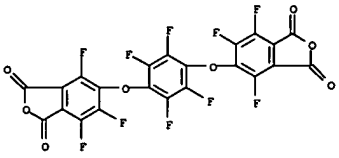
AB Title tapes are obtained by laminating UV-curable adhesive layers on ≥1 side of fluorinated polyimide support films. The tapes show good productivity and dimensional stability and are useful for fixation of
lead pins at lead frames. Thus, XE 17A5537 (silicone-based UV-curable adhesive) was applied on a polyimide I film to give an adhesive tape, which was bonded with Ni-Fe alloy and UV-cured to give a test piece having
peeling strength 255 g/15 mm.
ACCESSION NUMBER: 1997:61080 CAPLUS
DOCUMENT NUMBER: 126:105097
TITLE: Adhesive tapes for fixation of electronic parts in semiconductor devices
INVENTOR(S): Tanaka, Yoshiharu; Taguchi, Yoshio
PATENT ASSIGNEE(S): Bando Chemical Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08283677	A2	19961029	JP 1995-112470	19950412
PRIORITY APPLN. INFO.:			JP 1995-112470	19950412

IT 143376-21-0 143433-45-8
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesive tapes with good productivity and dimensional stability for fixation of electronic devices)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-
1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

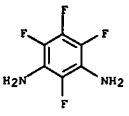
CRN 143363-91-1
CMF C22 F10 O8



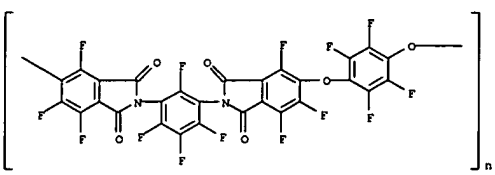
L56 ANSWER 52 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CM 2

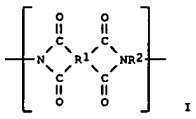
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 53 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI

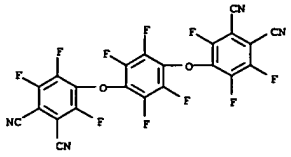


AB Polyimide optical materials comprise a perfluorinated polyimide having a perfluorinated repeating unit represented by the general formula I (R1 = a
tetravalent perfluorinated organic group; and R2 = a divalent perfluorinated
organic group).
ACCESSION NUMBER: 1995:854348 CAPLUS
DOCUMENT NUMBER: 123:354214
TITLE: Polyimide optical material
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corporation, Japan
SOURCE: U.S., 26 pp. Cont.-in-part of U.S. Ser. No. 54,973, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

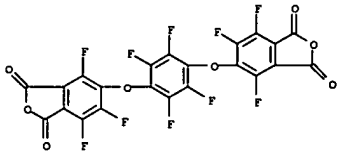
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5449741	A	19950912	US 1993-140982	19931025
JP 09031014	A2	19970204	JP 1996-207475	19910913
US 5233018	A	19930803	US 1991-765672	19910926
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 5750731	A	19980512	US 1996-718208	19960920
US 5849934	A	19981215	US 1998-20573	19980128
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		
PRIORITY APPLN. INFO.:			JP 1990-256843	A 19900928
			JP 1991-106552	A 19910412
			JP 1991-106554	A 19910412
			JP 1991-106557	A 19910412
			US 1991-765672	A3 19910926
			US 1993-54973	B2 19930430

JP 1991-235020	A3	19910913
CA 1991-2052368	A3	19910926
US 1993-140482	A3	19931025
US 1993-140982	A3	19931025
US 1995-451465	A1	19950526
US 1996-718208	A3	19960920
US 1998-20573	A3	19980128

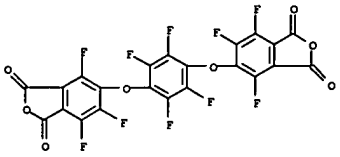
IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyimide optical materials)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-91-1P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy) tetrafluorobenzene dianhydride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyimide optical materials)
RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)

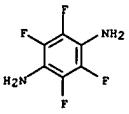


IT **143376-21-0P 143376-22-1P 143376-23-2P**



CM 2

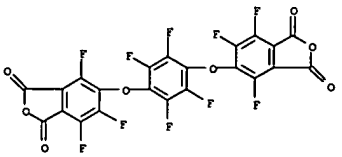
CRN 1198-64-7
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8



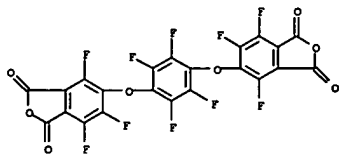
CM 2

CRN 20115-19-9

143376-24-3P 143433-45-8P 143433-46-9P 143433-47-0P 143433-48-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide optical materials)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

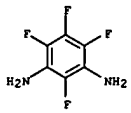
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

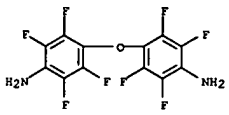


RN 143376-22-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,3,5,6-tetrafluoro-1,4-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8

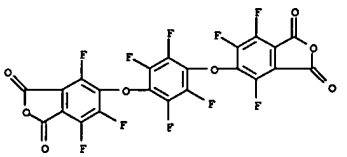
CMF C12 H4 F8 N2 O



RN 143376-24-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-thiobis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

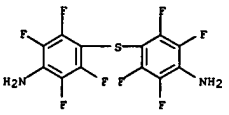
CM 1

CRN 143363-91-1
CMF C22 F10 O8



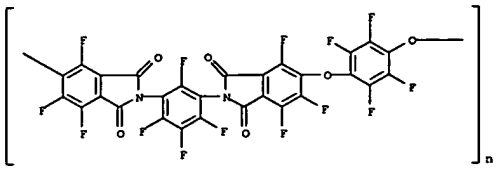
CM 2

CRN 61907-46-8
CMF C12 H4 F8 N2 S

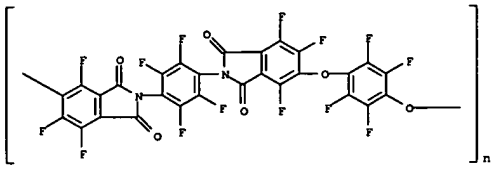


RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-

isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

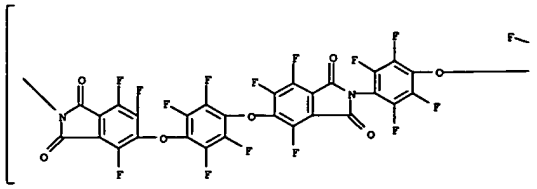


RN 143433-46-9 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

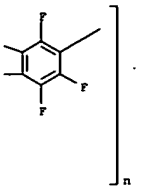


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

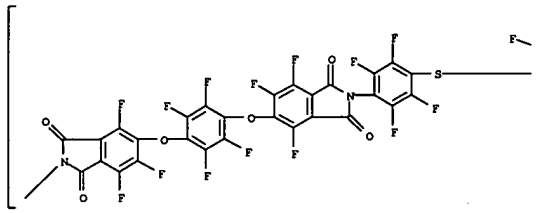


PAGE 1-B

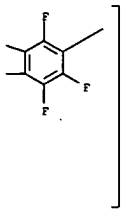


RN 143433-48-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)thio(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

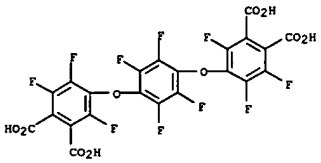
PAGE 1-A



PAGE 1-B



IT 143363-92-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reg; polyimide optical materials)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



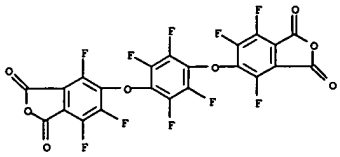
L56 ANSWER 54 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB High resolution fluorine-19 NMR spectra of polyfluoroarom. compds. dissolved in deuterated DMSO were measured and substituent shielding parameters were derived. These parameters were compared with the values observed in deuterated chloroform solns. and used to identify fluoroarom. compds. related to perfluorinated polyimides and poly(amic acids)s. Average differences of Δδ between the solvents are 1.1, 1.0 and 2.1 ppm for o-, m- and p-fluorines of monosubstituted pentafluorobenzenes, resp. The significant difference for p-fluorine of NH2 is important in identifying perfluorinated diamines because they are source materials for perfluorinated polyimides. Substituent shielding parameters for meta and para substitution increase as the resp. Hammett σ consts. increase, which indicates that fluorine-19 NMR chemical shift is primarily determined by electron d.

ACCESSION NUMBER: 1995:736766 CAPLUS
DOCUMENT NUMBER: 123:227514
TITLE: Substituent shielding parameters of fluorine-19 NMR on polyfluoroaromatic compounds dissolved in dimethyl sulfoxide-d6
AUTHOR(S): Ando, Shinji; Matsuura, Tohru
CORPORATE SOURCE: NTT Interdisciplinary Research Laboratories, Tokyo, 180, Japan
SOURCE: Magnetic Resonance in Chemistry (1995), 33(8), 639-45
CODEN: MRCHEG; ISSN: 0749-1581
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

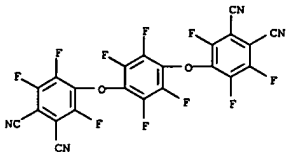
IT **143363-91-1 143363-92-2 143376-21-0 143376-50-5 143433-45-8 168417-33-2**
RL: PRP (Properties)
(substituent shielding parameters in fluorine-19 NMR study of polyfluoroarom. compds.)

RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)

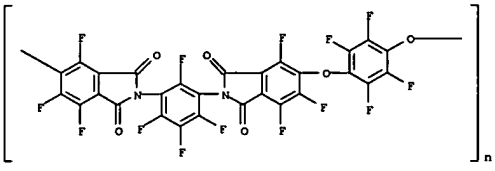


RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

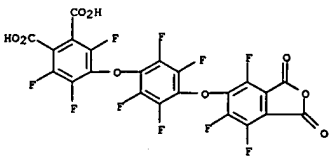
L56 ANSWER 54 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



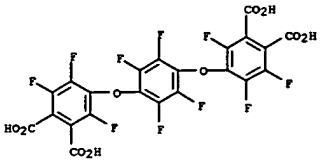
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 168417-33-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 3,4,6-trifluoro-5-[2,3,5,6-tetrafluoro-4-[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)oxy]phenoxy]- (9CI) (CA INDEX NAME)



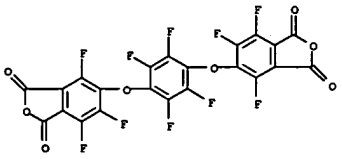
L56 ANSWER 54 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

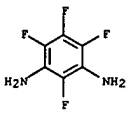
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

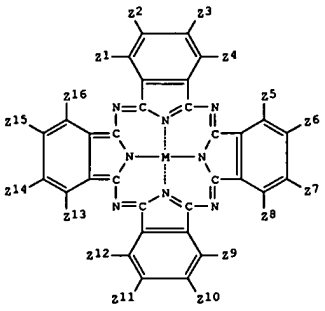
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 55 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB The mixts. contain a transparent resin [e.g., polycarbonate, poly(Me methacrylate), PVC, or poly(ethylene terephthalate)], a near-IR-absorbing phthalocyanine compound I (Z1-16 = SR1, OR2, H, halo, NHY; ≥1 of Z1-16 = NHY; R1-2 = Ph, substituted Ph, C1-20 alkyl; Y = Ph, substituted Ph, C1-8 alkyl; M = VO, Zn, Cu, SnCl2, Co, etc.), and, optionally, carbon black. Replacing part of the I with carbon black does not decrease the heat-radiation-shielding ability of the mixts. The mixts. are useful as moldings which transmit visible light while blocking near-IR radiation (i.e., they absorb the heat from sunlight).

ACCESSION NUMBER: 1995:550904 CAPLUS
DOCUMENT NUMBER: 122:316019
TITLE: Heat-radiation-shielding mixtures of polymers and near-IR-absorbing phthalocyanine compounds
INVENTOR(S): Kaieda, Osamu; Yodoshi, Takashi; Morita, Ken; Matsuura, Michio
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 607031	A1	19940720	EP 1994-300205	19940112
EP 607031	B1	19991006		
R: BE, DE, ES, FR, GB, IT, NL				
JP 06264050	A2	19940920	JP 1993-352128	19931229
ES 2136700	T3	19991201	ES 1994-300205	19940112

L56 ANSWER 55 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
PRIORITY APPLN. INFO.: JP 1993-4326 A 19930113

OTHER SOURCE(S): MARPAT 122:316019
IT 163464-84-4
RL: MOA (Modifier or additive use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(near-IR absorber; heat-radiation-shielding compns. containing polymers and)
RN 163464-84-4 CAPLUS
CN Zinc, [N,N',N'',N'''-tetrahexyl-1,3,4,8,10,11,15,17,18,22,24,25-dodecakis(2,3,5,6-tetrafluorophenoxy)-29H,31H-phthalocyanine-2,9,16,23-tetraminato(2-)-κN29,κN30,κN31,κN32]-, (SP-4-1)- (9CI) (CA INDEX NAME)

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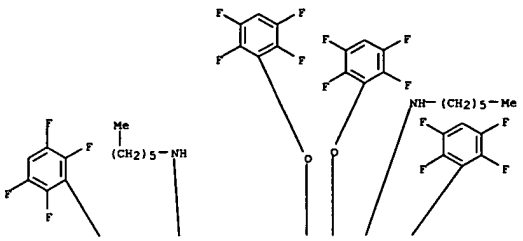

L56 ANSWER 55 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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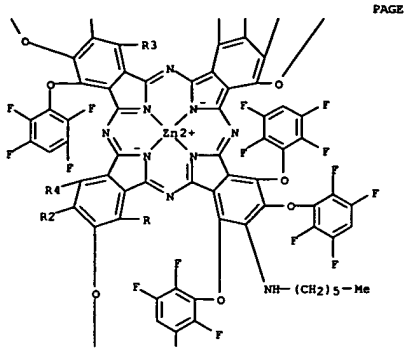

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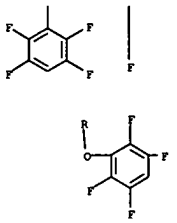

L56 ANSWER 55 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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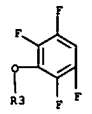
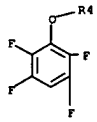
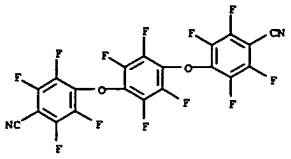


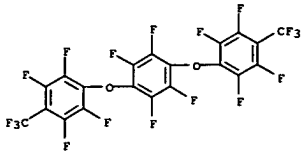


L56 ANSWER 56 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB In the presence of fluoride ion, per- or polyfluoroarom. siloxanes C6F5OSi(CH3)3 (1), (CH3)3SiOC6F4OSi(CH3)3 (2), 1-fluoro-2,3-bis[(trimethylsilyl)oxy]benzene (3), and (CH3)3SiOC(CF3)2C6F4C(CF3)2OSi(CH3)3 (4) are useful transfer reagents for the synthesis of mono- and diethers. Siloxane 1 forms RfOCF2Br (5), (RfO)3CF (6), RfOCH2ORf (7), (RfO)2CHCH(ORf)2 (8), (RfO)2SO (9), (RfO)2CO (10), C3N3(ORf)3 (11), RfOC(O)(CF2)3C(O)ORf (12), CF3SO2ORf (13), [cyclic] CF2C(ORf):C(ORf)CF2 (14), and [cyclic] CF2C(ORf):C(F)CF2 (15) (Rf = C6F5) with CF2Br2, CFBr3, CH2Br2, Br2CHCHBr2, SOF2, COF2, (CNF)3, ClC(O)(CF2)3C(O)Cl, CF3SO2F, 1,2-dichlorotetrafluorocyclobutene, and perfluorocyclobutene, resp. Compound 5 is readily converted to C6F5OCF2Si(CH3)3 (16) with hexaethylphosphorous triamide and (CH3)3SiCl in benzonitrile. With C6F5CN, CF3C6F5, C5F5N, CH3I, perfluorocyclobutene, CF3C(O)Cl and (CNF)3, 2 forms diethers p-CNC6F4OC6F4OC6F4CN-p (17), p-CF3C6F4OC6F4OC6F4CF3-p (18), NC5F4OC6F4OC5F4N (19), CH3OC6F4OCH3 (20), and C2F5C(O)OC6F4OC(O)C2F5 (21), resp. Reaction of 3 with 1,2-diiodotetrafluorobenzene in diglyme gives 1,4,9-trifluoro-2,3-diiodophenozine (22). Disiloxane 4 with C6H5CH2Br, CH3I, C6F5CH2Br, and COF2 results in C6H5CH2OC(CF3)2C6F4C(CF3)2OCH2C6H5 (23), CH3OC(CF3)2C6F4C(CF3)2OCH3 (24), C6F5CH2OC(CF3)2C6F4C(CF3)2OCH2C6F5 (25), and [cyclic] C(O)OC(CF3)2C6F4C(CF3)2OC(O)OC(CF3)2C6F4C(CF3)2O (26), resp. These materials are thermally and hydrolytically stable and are formed in high yields.
ACCESSION NUMBER: 1995:269201 CAPLUS
DOCUMENT NUMBER: 122:133262
TITLE: Per- and Polyfluoroaryl Mono- and Disiloxanes as Transfer Reagents in the Synthesis of Highly Fluorinated Mono- and Diethers
AUTHOR(S): Patel, Nimesh R.; Chen, Jianguo; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1995), 34(1), 13-17
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:133262
IT 15053-71-1P 15077-30-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 15053-71-1 CAPLUS
CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 56 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 15077-30-2 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



L56 ANSWER 57 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

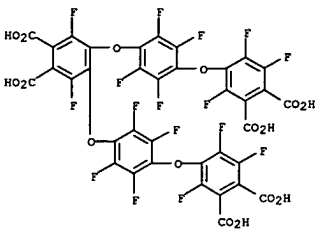
AB Title compds. I, useful as material for hardeners for fluorinated epoxy resins (no data), is prepared via II [R = cyano, CO2H]. Thus, a mixture of tetrafluorophthalonitrile, tetrafluorohydroquinone, and Et3N in DMF was heated at 35° for 30 to give 21% II [R = cyano], which was treated with 60% H2SO4 at 150° for 5 h to give 26% II [R = CO2H], which was refluxed with Ac2O for 2 h to 52% I.

ACCESSION NUMBER: 1994:630662 CAPLUS
DOCUMENT NUMBER: 121:230662
TITLE: preparation of a perfluorinated hexacarboxylic acid as material for hardeners for fluorinated epoxy resins
INVENTOR(S): Sasaki, Shigekuni; Matsura, Tooru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

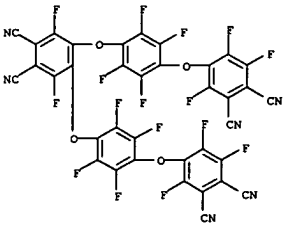
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06157501	A2	19940603	JP 1992-340986	19921130
PRIORITY APPLN. INFO.:			JP 1992-340986	19921130

OTHER SOURCE(S): CASREACT 121:230662
IT **158394-12-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion into trianhydride)
RN 158394-12-8 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,5-bis[4-(3,4-dicarboxy-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)

L56 ANSWER 57 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

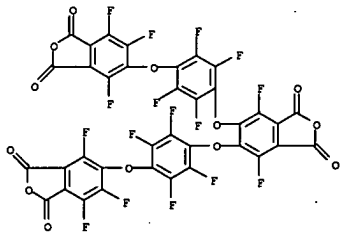


IT **158394-11-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 158394-11-7 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,5-bis[4-(3,4-dicyano-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)

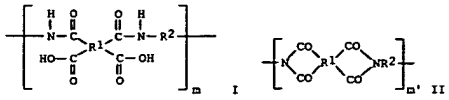


IT **158394-13-9P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of a perfluorinated hexacarboxylic acid as material)
RN 158394-13-9 CAPLUS
CN 1,3-Isobenzofurandione, 4,7-difluoro-5,6-bis[2,3,5,6-tetrafluoro-4-[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)oxy]phenoxy]- (9CI) (CA INDEX NAME)

L56 ANSWER 57 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



GI



AB The material comprises a perfluoropolyamic acid I or a perfluoropolyimide II [R1 = groups derived from (per)fluorinated aromatic tetracarboxylic acids; R2 = groups derived from (per)fluorinated aromatic diamines] containing a nonlinear optical material. The manufacturing process employs a DC-field poling at temperature greater than the glass transition, or an imidization of the polyamide precursor in a corona-discharge field. The material is suited for use as a high-conversion 2nd harmonic generator for a near IR input.

ACCESSION NUMBER: 1994:521361 CAPLUS
DOCUMENT NUMBER: 121:121361
TITLE: Second harmonic generating materials and manufacture thereof
INVENTOR(S): Amano, Michuki; Kaino, Toshikuni; Sasaki, Shigekuni; Ando, Shinji; Matsura, Tooru
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06003713	A2	19940114	JP 1991-123054	19910426
PRIORITY APPLN. INFO.:			JP 1991-123054	19910426

IT **157044-23-0P 157044-24-1P 157044-25-2P**
RL: PREP (Preparation)
(prepare and use of, as second harmonic generating materials)

RN 157044-23-0 CAPLUS
CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-7-nitro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine and 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

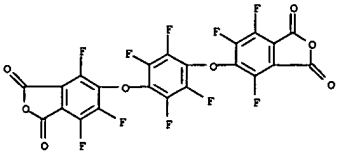
CM 1

CRN 143363-91-1
CMF C22 F10 O8

5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

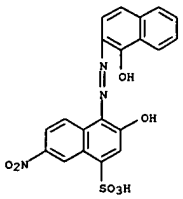
CM 1

CRN 143363-91-1
CMF C22 F10 O8



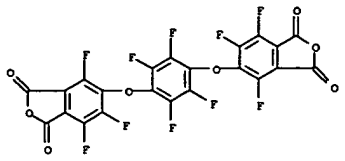
CM 2

CRN 25747-08-4
CMF C20 H13 N3 O7 S



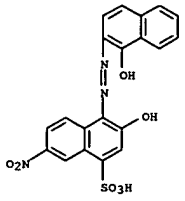
CM 3

CRN 20115-19-9
CMF C12 H4 F8 N2 O



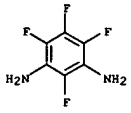
CM 2

CRN 25747-08-4
CMF C20 H13 N3 O7 S

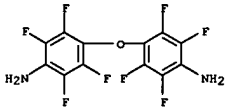


CM 3

CRN 1198-63-6
CMF C6 H4 F4 N2



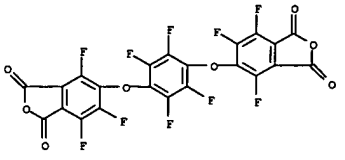
RN 157044-24-1 CAPLUS
CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-7-nitro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] and



RN 157044-25-2 CAPLUS
CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[(1-hydroxy-2-naphthalenyl)azo]-7-nitro-, polymer with 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] and 4,4'-thiobis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

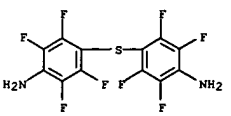
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

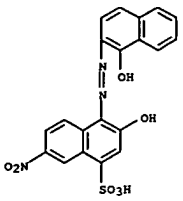
CRN 61907-46-8
CMF C12 H4 F8 N2 S



CM 3

CRN 25747-08-4
CMF C20 H13 N3 O7 S

L56 ANSWER 58 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



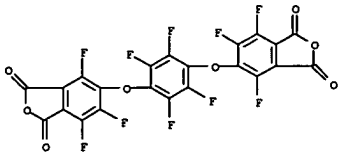
L56 ANSWER 59 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Perfluorinated polyimides with high glass temperature (>270°) and high optical transparency over the entire wave lengths of optical communications were prepared Their high thermal stability and optical transparency were due to the fully aromatic mol. structure and the absence of H atoms. These polymers had low dielec. consts., low refractive indexes, and low birefringence.

ACCESSION NUMBER: 1994:484109 CAPLUS
DOCUMENT NUMBER: 121:84109
TITLE: Synthesis of perfluorinated polyimides for optical applications
AUTHOR(S): Ando, Shinji; Matsuura, Tohru; Sasaki, Shigekuni
CORPORATE SOURCE: Interdiscipl. Res. Lab., NTT, Musashino, 180, Japan
SOURCE: ACS Symposium Series (1994), 537(Polymer for Microelectronics), 304-22
CODEN: ACSMC8; ISSN: 0097-6156
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **143363-91-1P**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polymerization of, with diamines)

RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



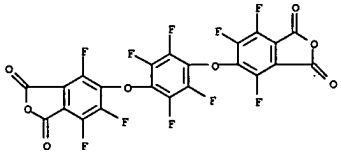
IT **143376-21-0P 143433-45-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of, for optical applications)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

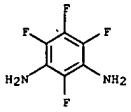
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 59 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

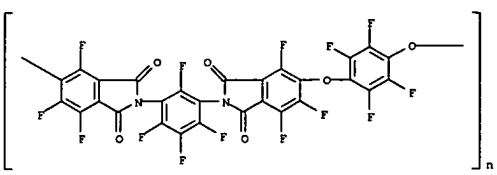


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

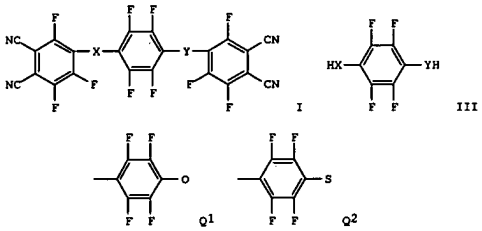


RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



L56 ANSWER 60 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB The title derivs. I (X = O, S; Y = O, S, Q1, Q2) are prepared by treating ≥8 mol 3,4,5,6-tetrafluorophthalonitrile (II) with 1 mol phenols or thiophenols III in the presence of basic substances in organic solvents.
A mixture of 0.22 mol II and KF in MeCN was treated dropwise with a solution of 0.011 mol III (X = Y = O) in MeCN under reflux over 1 h, then refluxed for 4 h to give 99% I.

ACCESSION NUMBER: 1994:435030 CAPLUS
DOCUMENT NUMBER: 121:35030
TITLE: Preparation of fluorine-containing phthalonitrile derivatives as intermediates for fluorine-containing polyimides
INVENTOR(S): Kaieda, Osamu; Okumura, Yasunori; Ito, Hideki
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

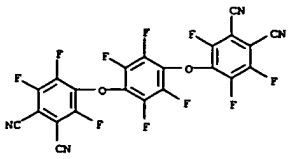
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016615	A2	19940125	JP 1992-176633	19920703
JP 08000803	B4	19960110		
PRIORITY APPLN. INFO.:			JP 1992-176633	19920703

OTHER SOURCE(S): CASREACT 121:35030; MARPAT 121:35030

IT **143376-50-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for polyimides)

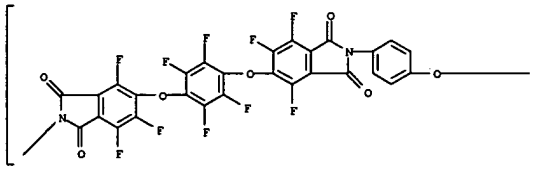
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-

L56 ANSWER 60 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



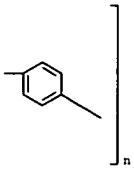
L56 ANSWER 61 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Refractive indexes at 589.3 nm of 19 polyimides were measured using an Abbe refractometer and calculated from their Van der Waals vols. and mol. polarizabilities. The calculated refractive index when the packing coefficient was assumed to be 0.681 shows a linear relationship with the measured index (n) with a square correlation coefficient of 0.900. However, the slope considerably deviates from 1.0, which indicates that the mol. packing of polyimides changes according to their mol. structure. Packing coeffs. (Kp) of polyimides are estimated by comparing n with calculated parameter ϕo. The mol. chains of the polyimides with high n are densely packed, and a planar structure of pyromellitic dianhydrides or ether linkages lead to high Kp. In contrast, the mol. chains of polyimides with low n are loosely packed, and trifluoromethyl groups cause a decrease of interchain interaction and a intra-chain steric hindrance that inhibits mol. packing.
ACCESSION NUMBER: 1994:299799 CAPLUS
DOCUMENT NUMBER: 120:299799
TITLE: Calculation of refractive indices of polyimides and their molecular packing
AUTHOR(S): Ando, Shinji
CORPORATE SOURCE: NTT Interdiscip. Res. Lab., Musashino, 180, Japan
SOURCE: Kobunshi Ronbunshu (1994), 51(4), 251-7
CODEN: KBRBA3; ISSN: 0386-2186
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
IT **148362-05-4 148362-06-5 148446-36-0 148446-37-1**
RL: PRP (Properties)
(Van der Waals volume and mol. polarizabilities and refractive indexes of, calcn. and measuring of)
RN 148362-05-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



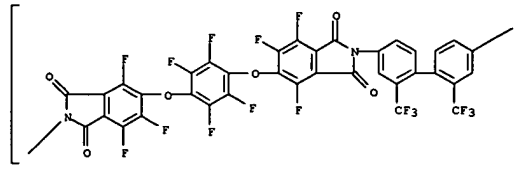
L56 ANSWER 61 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

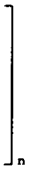


RN 148362-06-5 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

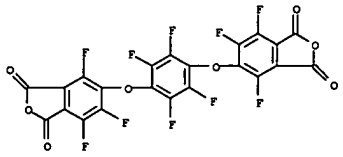


RN 148446-36-0 CAPLUS

L56 ANSWER 61 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

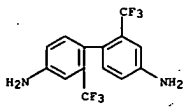
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 341-58-2
CMF C14 H10 F6 N2

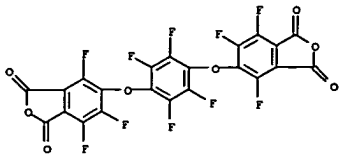


RN 148446-37-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

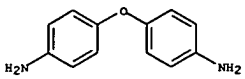
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 61 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

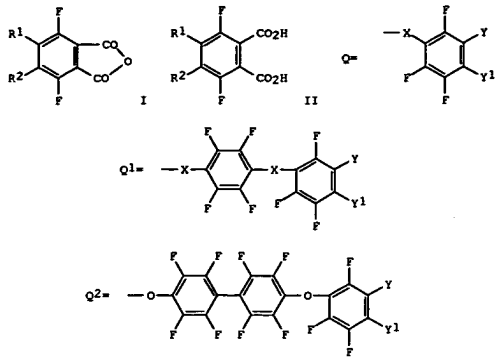


CM 2

CRN 101-80-4
CMF C12 H12 N2 O



L56 ANSWER 62 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



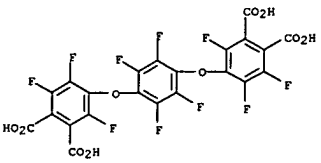
AB The title compds. (I; R1, R2 = F, C1-12 linear or branched alkoxy, C1-12 alkylthio, C1-12 alkylamino, aryloxy, arylthio, arylamino, Q - Q2; X = O, S; YY1 = CO2CO), useful as intermediates for drugs, agrochems., optical materials, printed circuit board materials, photosensitive materials, and liquid crystal materials, are prepared by heating F-containing phthalic acid derivs. (II; R1, R2, X = same as above; Y, Y1 = CO2H) in a solvent selected from SOCl2, POCl3, or AcCl at 40-105°. The process is safe and gives perfluorophthalic anhydride derives. I of high purity in high yields. Thus, 70.5 g SOCl2 was added to 30.0 g tetrafluorophthalic acid and the resulting mixture was allowed to react at 70° for .apprx.3 h to give 97% tetrafluorophthalic anhydride.

ACCESSION NUMBER: 1994:298457 CAPLUS
DOCUMENT NUMBER: 120:298457
TITLE: Preparation of fluorine-containing phthalic anhydride derivatives
INVENTOR(S): Okumura, Yasunori; Ito, Hideki; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

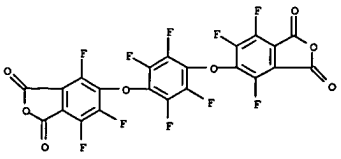
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016656	A2	19940125	JP 1992-175450	19920702
JP 3130653	B2	20010131		
PRIORITY APPLN. INFO.:			JP 1992-175450	19920702

OTHER SOURCE(S): CASREACT 120:298457; MARPAT 120:298457

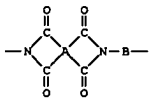
IT **143363-92-2**
RL: PROC (Process)
(conversion of, into acid anhydride)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-91-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 63 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB The liquid crystal orientation film comprises a fluorinated polyimide with a repeating unit I [A = tetravalent aromatic; B = divalent aromatic; ≥1 of A and B is substituted with a F-containing substituent]. The title LCD using said orientation film was also claimed.

ACCESSION NUMBER: 1994:257539 CAPLUS
DOCUMENT NUMBER: 120:257539
TITLE: Liquid crystal orientation film providing large pretilt angle and bistability and liquid-crystal display (LCD) device using same
INVENTOR(S): Ishibashi, Shigeki; Hirayama, Misako; Matsura, Tooru
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

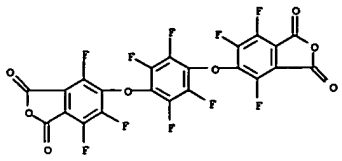
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05150245	A2	19930618	JP 1991-136951	19910514
PRIORITY APPLN. INFO.:			JP 1990-129146	19900521

IT **154455-33-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, liquid-crystal display orientation film from)
RN 154455-33-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 3,3'-dimethyl[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

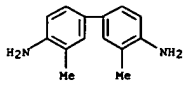
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 63 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

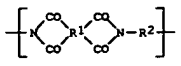


CM 2

CRN 119-93-7
CMF C14 H16 N2



L56 ANSWER 64 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB An optical part comprises a perfluoropolyimide I(R1 = C6Rf4 or directly bonded 2-3 C6Rf4 rings; R2 = C6Rf4 or (in)directly bonded C6Rf4; Rf = F, perfluoroalkyl), wherein the optical part (lenses and prisms) is formed by cast-molding a polyiamide precursor.

ACCESSION NUMBER: 1994:41680 CAPLUS
DOCUMENT NUMBER: 120:41680
TITLE: Optical parts and manufacture thereof
INVENTOR(S): Takeshima, Mikio; Ando, Shinji; Matsura, Tooru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

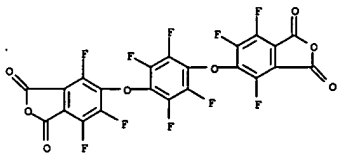
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05113501	A2	19930507	JP 1991-122960	19910426
JP 3050334	B2	20000612		
PRIORITY APPLN. INFO.:			JP 1991-122960	19910426

IT **143376-21-0 143376-23-2 143376-24-3**
RL: USES (Uses)
(cast-molded lenses from)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

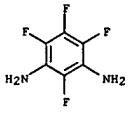
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 64 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

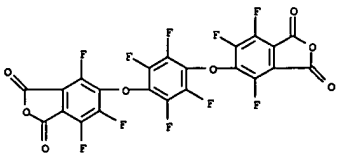
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

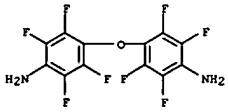
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

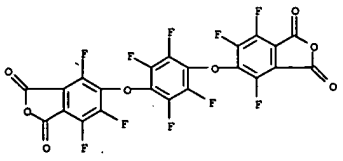
L56 ANSWER 64 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143376-24-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-thiobis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

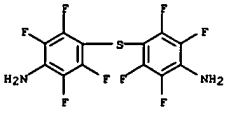
CM 1

CRN 143363-91-1
CMF C22 F10 O8

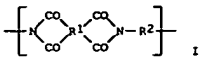


CM 2

CRN 61907-46-8
CMF C12 H4 F8 N2 S



L56 ANSWER 65 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

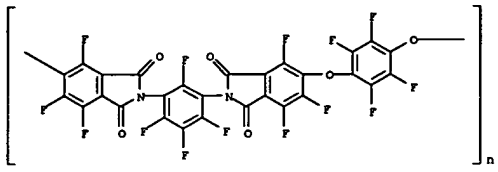
AB The title liquid-crystal display device comprises a liquid crystal layer and a pair of transparent electrode-bearing plastic flexible film substrates, in which the plastic film is made of a completely fluorinated polyimide film I [R1 = specified benzene-type moiety; R2 = specified moiety including benzene-type moiety; and n = 1-10].

ACCESSION NUMBER: 1994:19348 CAPLUS
DOCUMENT NUMBER: 120:19348
TITLE: Flexible liquid-crystal display device having improved moisture-proof and optical properties
INVENTOR(S): Takahashi, Kazue; Ando, Shinji; Matsura, Toru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328524	A2	19921117	JP 1991-122939	19910426
PRIORITY APPLN. INFO.:			JP 1991-122939	19910426

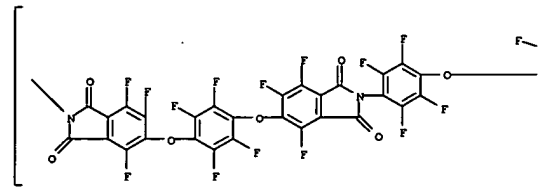
IT 143433-45-8 143433-47-0
RL: USES (Uses)
(transparent substrates from, for flexible liquid-crystal display devices)
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

L56 ANSWER 65 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

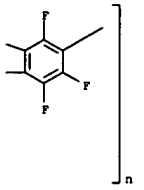


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

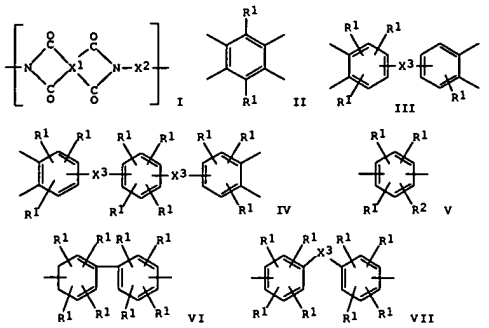


PAGE 1-B



L56 ANSWER 65 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L56 ANSWER 66 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB An IR-transmitting ridge waveguide, formed typically on a SiO2-passivated Si wafer, contains I (X1 = II, III, IV; X2 = V, VI, VII; R1 = F, perfluoroalkyl; X3 = O, CO, SO2, C(R2)2, S, X4, OX4, X4O, (OX4)n, (X4O)n, (OX4)nO, OCOX4COO; R2 = F, perfluoroalkyl; X4 = perfluoroalkylene; n = 1-10). The waveguide withstands high temperature and is suited for use in a large-area optoelectronic integrated circuit.

ACCESSION NUMBER: 1994:18766 CAPLUS
DOCUMENT NUMBER: 120:18766
TITLE: Perfluoropolyimide waveguide
INVENTOR(S): Matsura, Toru; Ando, Shinji; Sasaki, Shigekuni; Shimokawa, Fusao
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

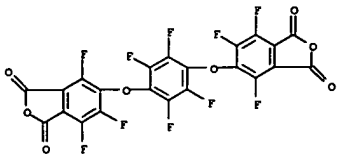
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328504	A2	19921117	JP 1991-125450	19910426
PRIORITY APPLN. INFO.:			JP 1991-125450	19910426

IT 143376-21-0 143376-23-2 143433-45-8 143433-47-0
RL: USES (Uses)

L56 ANSWER 66 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(IR-transmitting ridge waveguides from)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

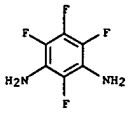
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

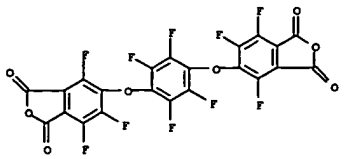


RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

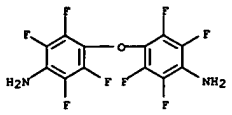
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 66 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

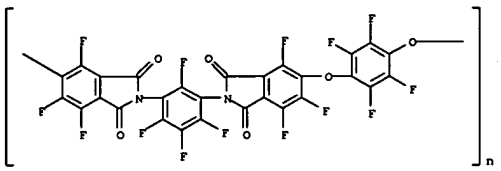


CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 66 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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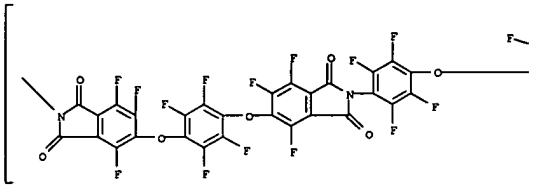
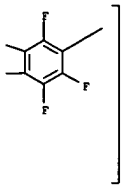
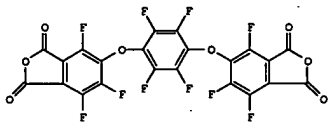


PAGE 1-B



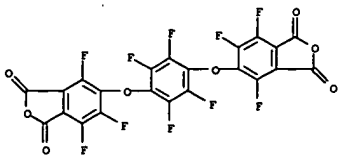
L56 ANSWER 67 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB I was prepared and copolymd. with tetrafluoro-m-phenylenediamine to give an
aromatic fluoropolymer-polyether-polyimide (II) with glass temperature 301°,
initial decomposition temperature 407° (under N), and dielec. constant 2.8 (10
kHz). No substantial absorption peak was noted for II over the range 0.8-1.6 μm.

ACCESSION NUMBER: 1993:603979 CAPLUS
DOCUMENT NUMBER: 119:203979
TITLE: Synthesis of perfluorinated polyimides for optical applications
AUTHOR(S): Ando, S.; Matsuura, T.; Sasaki, S.
CORPORATE SOURCE: Interdiscip. Res. Lab., NTT, Musashino, 180, Japan
SOURCE: Polymeric Materials Science and Engineering (1992), 66, 200-1
CODEN: PMSEDG; ISSN: 0743-0515
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **143363-91-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and polycondensation of)
RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)

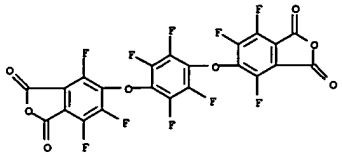


IT **143376-21-0P 143433-45-8P**

L56 ANSWER 67 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and thermal, dielec. and spectral absorption properties of)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

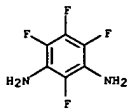
CM 1

CRN 143363-91-1
CMF C22 F10 O8



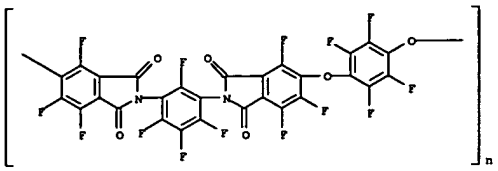
CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

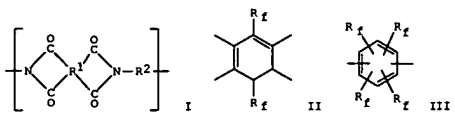


RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

L56 ANSWER 67 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 68 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



AB A heat-resistant flexible printed circuit substrate comprises a totally fluorinated polyimide I [R1 = II and R2 = III (Rf = F, perfluoroalkylene, etc.)]. The manufacture comprises laminating the substrate with a metal foil (e.g., Al).

ACCESSION NUMBER: 1993:572383 CAPLUS
DOCUMENT NUMBER: 119:172383
TITLE: Heat-resistant flexible printed circuit substrate and manufacture thereof
INVENTOR(S): Matsura, Toru; Ando, Shinji; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

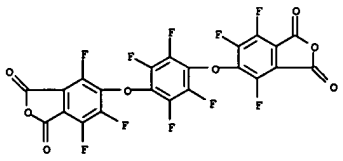
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328891	A2	19921117	JP 1991-125449	19910426
PRIORITY APPLN. INFO.:			JP 1991-125449	19910426

IT **143376-21-0P 143376-23-2P 143433-45-8P 143433-47-0P**
RL: PREP (Preparation)
(preparation of, heat-resistant flexible printed circuit substrate from)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

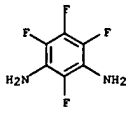
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 68 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

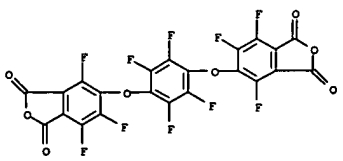
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

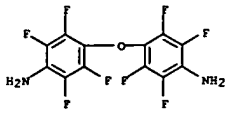
CRN 143363-91-1
CMF C22 F10 O8



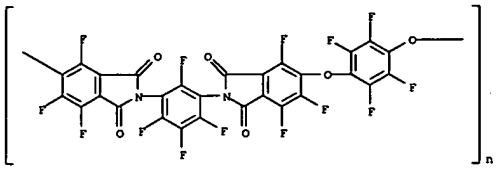
CM 2

L56 ANSWER 68 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 20115-19-9
CMF C12 H4 F8 N2 O



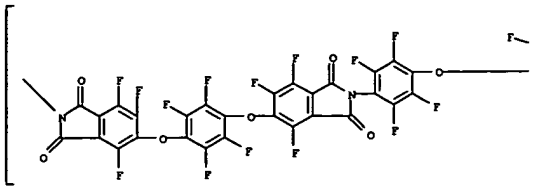
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



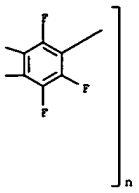
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 68 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



L56 ANSWER 69 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The thin films are prepared by evaporation and polymerization of perfluorinated tetracarboxylic acids with perfluorinated diamines on a support. Thus, 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene anhydride and 2,4,5,6-tetrafluoro-1,3-phenylenediamine were evaporated at 80° and 70°, resp. and 1 + 10-7 torr onto a support to grow a 2000-Å film followed by polymerization at 200° to give a film with dielec. constant ≤2.7 at 10 kHz.

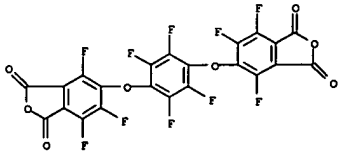
ACCESSION NUMBER: 1993:540736 CAPLUS
DOCUMENT NUMBER: 119:140736
TITLE: Fluorinated polyimide resin thin films with low dielectric constant
INVENTOR(S): Maruo, Yoko; Ando, Shinji; Sasaki, Shigekuni; Matsura, Toru
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328133	A2	19921117	JP 1991-123061	19910426
JP 3080183	B2	20000821		
PRIORITY APPLN. INFO.:			JP 1991-123061	19910426

IT **143376-21-0P 143376-23-2P 143433-45-8P 143433-47-0P**
RL: PREP (Preparation)
(thin films, with good adhesion and small dielec. constant, manufacture of)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 143363-91-1
CMF C22 F10 O8



L56 ANSWER 69 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

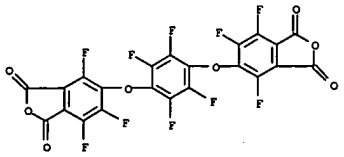
CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

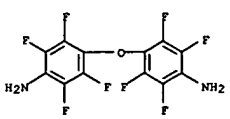
CM 1

CRN 143363-91-1
CMF C22 F10 O8

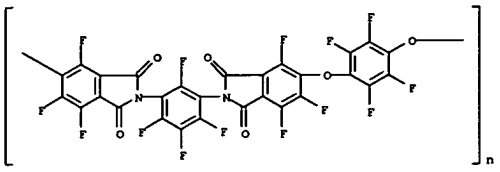


CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



L56 ANSWER 69 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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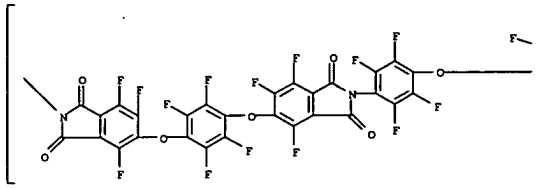
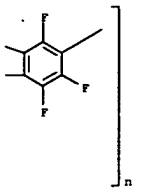


L56 ANSWER 69 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 70 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polyimides are prepared from perfluoro or perfluoroalkyl-substituted aromatic components with a specified structure. Thus, a DMF solution of 1,4-difluoropyromellitic dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer was spread on an Al plate and baked at 70-350° for 4.5 h to give a polyimide film with water absorption ≤0.2%, vs. 2.0 % for a film prepared from pyromellitic anhydride-oxydianiline copolymer.

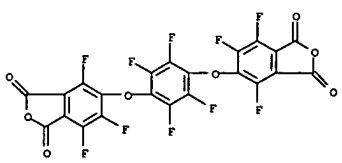
ACCESSION NUMBER: 1993:519002 CAPLUS
DOCUMENT NUMBER: 119:119002
TITLE: Heat- and moisture-resistant polyimide electric insulators
INVENTOR(S): Sasaki, Shigekuni; Ando, Shinji; Matsura, Toru
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04325580	A2	19921113	JP 1991-96622	19910426
PRIORITY APPLN. INFO.:			JP 1991-96622	19910426

IT **143376-21-0 143376-23-2 143433-45-8 143433-47-0**
RL: USES (Uses)
(elec. insulating coatings, with low water absorption)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

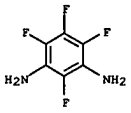
CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

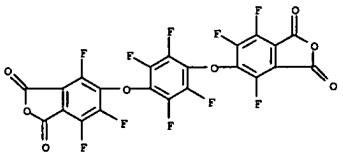
L56 ANSWER 70 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

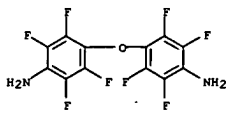
CM 1

CRN 143363-91-1
CMF C22 F10 O8



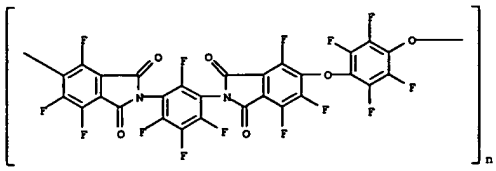
CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA

L56 ANSWER 70 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
INDEX NAME)



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-

diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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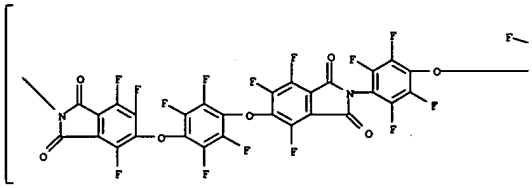
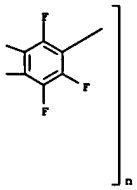


L56 ANSWER 70 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 71 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Precursors are prepared from perfluoro-substituted aromatic tetracarboxylic
acid dianhydrides, perfluorosubstituted aromatic diamines, and 2-hydroxyethyl
methacrylate (I) which introduces photosensitive groups. Thus, 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride was esterified with I to give a dicarboxylic acid diester, treated with thionyl chloride to give the corresponding acid chloride, and condensed with 2,4,5,6-tetrafluoro-1,3-phenylenediamine to prepare a precursor.

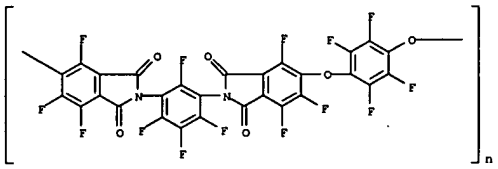
ACCESSION NUMBER: 1993:518573 CAPLUS
DOCUMENT NUMBER: 119:118573
TITLE: Photosensitive perfluoro polyimide precursors
INVENTOR(S): Ichino, Toshihiro; Matsura, Toru; Ando, Shinji; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328127	A2	19921117	JP 1991-122946	19910426
JP 2920887	B2	19990719		
PRIORITY APPLN. INFO.:			JP 1991-122946	19910426

IT 143433-45-8P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer, SRU 143433-47-0P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) ether copolymer, SRU 143433-48-1P, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetraflu orobenzene dianhydride-bis(2,3,5,6-tetrafluoro-4-aminophenyl) sulfide copolymer, SRU
RL: PREP (Preparation)
(manufacture of, from photocured methacrylate group-containing polyamic acid
esters)

RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

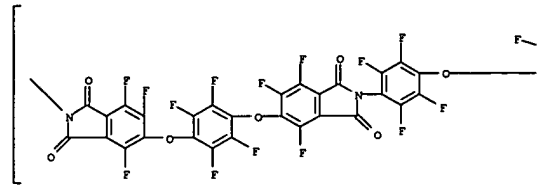
L56 ANSWER 71 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



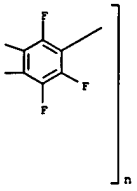
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-

diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

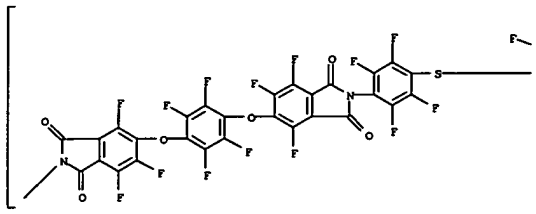


PAGE 1-B

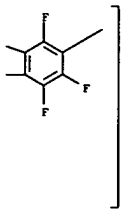


RN 143433-48-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)thio(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

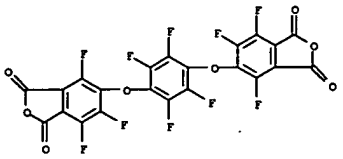
PAGE 1-A



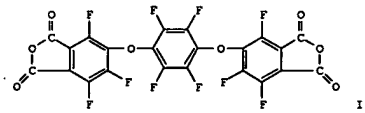
PAGE 1-B



IT 143363-91-1, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxyethyl methacrylate and thionyl chloride)
RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



GI



I

AB The title polymers, having low dielec. constant, and also useful for interlayer insulating films for semiconductors, are prepared by polycondensation of perfluoro aromatic tetracarboxylic acid dianhydrides with perfluoro aromatic diamines. Thus, stirring 20.0 mmol I with 20.0 mmol 2,4,5,6-tetrafluoro-1,3-phenylenediamine in 86 g AcNMe2 at room temperature for 3 days, spin coating this solution on an Al sheet and heating gave a film having dielec. constant 2.6 at 1 kHz, 10%-weight loss temperature 501°, and water absorption 0.15% at 23°.

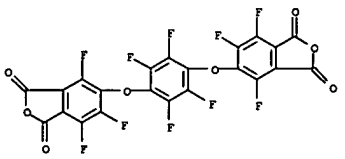
ACCESSION NUMBER: 1993:451450 CAPLUS
DOCUMENT NUMBER: 119:51450
TITLE: Heat- and moisture-resistant polyimides for surface protective films for semiconductor devices
INVENTOR(S): Matsura, Toru; Sasaki, Shigekuni; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328126	A2	19921117	JP 1991-122985	19910426
PRIORITY APPLN. INFO.:			JP 1991-122985	19910426

IT 143376-21-0P 143376-23-2P 143433-45-8P
143433-47-0P 148691-71-8P
RL: PREP (Preparation)
(preparation of, for protective or insulating films for semiconductor devices, heat- and moisture-resistant)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

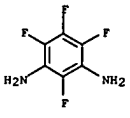
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

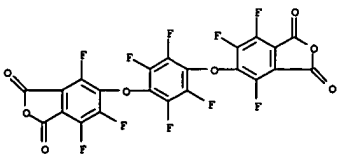
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

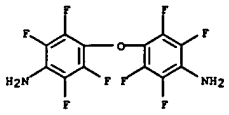
CM 1

CRN 143363-91-1
CMF C22 F10 O8

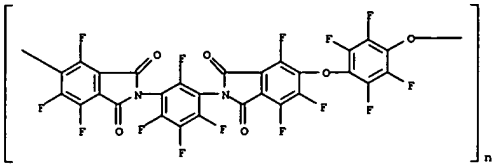


CM 2

L56 ANSWER 72 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CRN 20115-19-9
CMF C12 H4 F8 N2 O



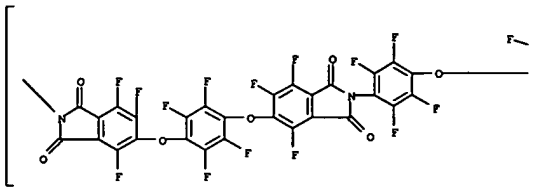
RN 143433-45-8 CAPLUS
CN
Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



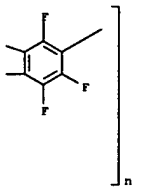
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 72 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

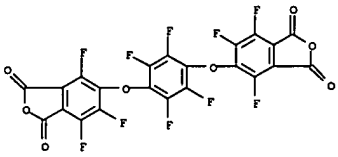


RN 148691-71-8 CAPLUS
CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, 4,8-difluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine and 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

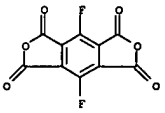
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 72 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



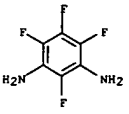
CM 2

CRN 46861-94-3
CMF C10 F2 O6



CM 3

CRN 1198-63-6
CMF C6 H4 F4 N2



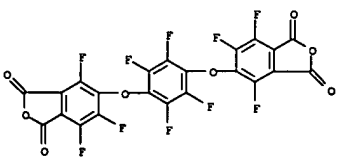
L56 ANSWER 73 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title fibers, with good transmittance in near IR light, are comprised of (per)fluorotetracarboxy acid or dianhydride and (per)fluoro diamines. Thus, a 50-μm-diameter fiber prepared from 1:1 copolymer of 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride and 2,4,5,6-tetrafluoro-1,3-phenylenediamine showed no weight loss after 2 h at
500° and light loss 0.1 dB at wave length 1.3 μm.
ACCESSION NUMBER: 1993:450901 CAPLUS
DOCUMENT NUMBER: 119:50901
TITLE: Heat-resistant polyamide-polyimide optical fibers
INVENTOR(S): Ando, Shinji; Matsura, Toru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328503	A2	19921117	JP 1991-122988	19910426
JP 2940645	B2	19990825		
PRIORITY APPLN. INFO.:			JP 1991-122988	19910426

IT **143376-21-0 143376-23-2 143433-45-8**
143433-47-0 148780-36-3
RL: USES (Uses)
(optical fiber, heat-resistant)
RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

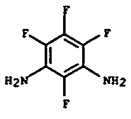
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

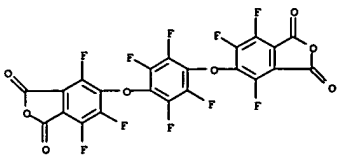
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

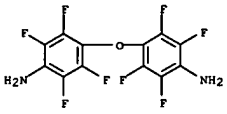
CM 1

CRN 143363-91-1
CMF C22 F10 O8



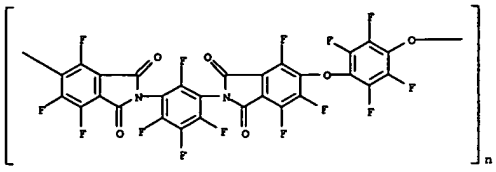
CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



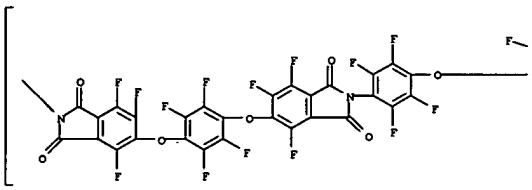
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA

INDEX NAME)

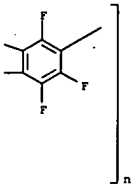


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



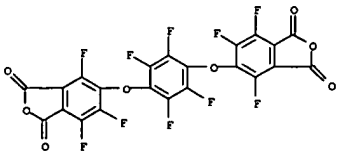
PAGE 1-B



RN 148780-36-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] and 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

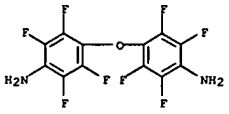
CM 1

CRN 143363-91-1
CMF C22 F10 O8



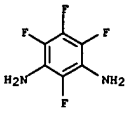
CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



CM 3

CRN 1198-63-6
CMF C6 H4 F4 N2



L56 ANSWER 74 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The title films showing good light transmittance at 0.8-1.7 μm comprise a polyimide layer and a metal layer, where the polyimide layer contains an aromatic polyimide with fluorine- or perfluoroalkyl-substituted phenylene groups. Stirring 11.644 g 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluo robenzene dianhydride and 3.602 g 2,4,5,6-tetrafluoro-1,3-phenylenediamine in 86 g AcNMe2 for 3 days, coating the polyamic solution onto an Al foil, curing at 70°-350° for 4.5 h, and soaking in 10% HCl gave a polyimide film with dielec. const 2.7. Vapor deposition of Ag onto the film gave a composite film.

ACCESSION NUMBER: 1993:450896 CAPLUS
DOCUMENT NUMBER: 119:50896
TITLE: Polyimide-metal composite films with low dielectric constant and improved light transmission
INVENTOR(S): Ando, Shinji; Matsura, Toru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp; CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04325236	A2	19921113	JP 1991-119108	19910424
JP 3001119	B2	20000124		
PRIORITY APPLN. INFO.:			JP 1991-119108	19910424

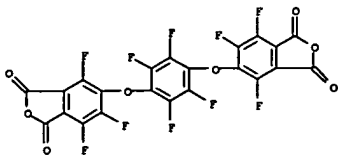
IT **143376-21-0 143376-23-2 143433-45-8 143433-47-0 148780-36-3**
RL: USES (Uses)
(metal film laminate, with low dielec. constant and good optical transmission)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

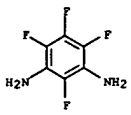
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 74 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

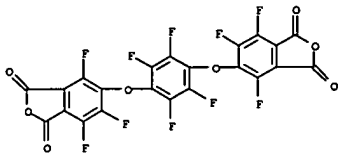
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

CM 1

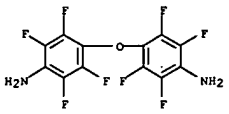
CRN 143363-91-1
CMF C22 F10 O8



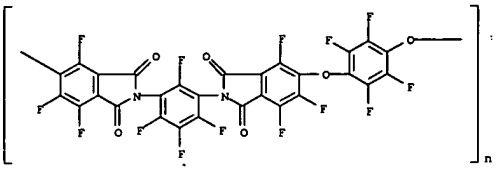
CM 2

L56 ANSWER 74 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 20115-19-9
CMF C12 H4 F8 N2 O



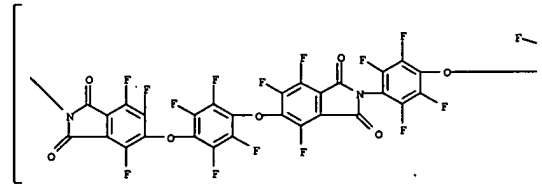
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



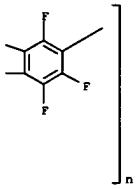
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

L56 ANSWER 74 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

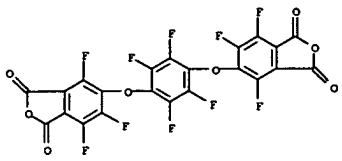


RN 148780-36-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] and 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

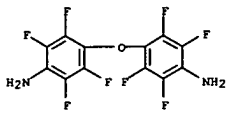
CRN 143363-91-1
CMF C22 F10 O8

L56 ANSWER 74 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



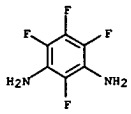
CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



CM 3

CRN 1198-63-6
CMF C6 H4 F4 N2



L56 ANSWER 75 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB Films having good light transmittance at wavelength 0.8-1.7 μm comprise a layer of a perfluoropolyimide and an ITO layer. Thus, a transparent 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine polyimide film was prepared and sputter-coated to give a film having surface resistance 30 Ω/.box..

ACCESSION NUMBER: 1993:429590 CAPLUS
DOCUMENT NUMBER: 119:29590
TITLE: Polyimide-indium tin oxide electrically conductive films and their manufacture
INVENTOR(S): Ando, Shinji; Matsura, Toru; Sasaki, Shigekuni
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

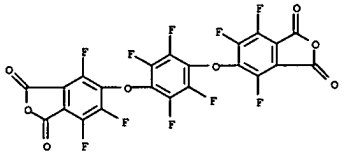
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04323232	A2	19921112	JP 1991-119109	19910424
JP 3105571	B2	20001106		
PRIORITY APPLN. INFO.:			JP 1991-119109	19910424

IT **143376-21-0**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer **143376-23-2** **143433-45-8**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer, SRU **143433-47-0**
RL: USES (Uses)
(films, ITO-coated, transparent and elec. conductive)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

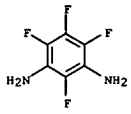
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

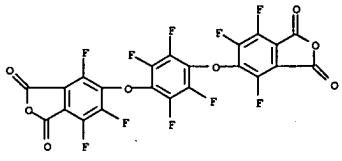
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

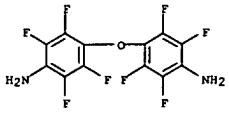
CM 1

CRN 143363-91-1
CMF C22 F10 O8

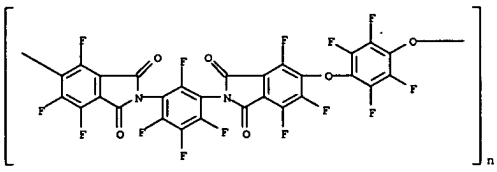


CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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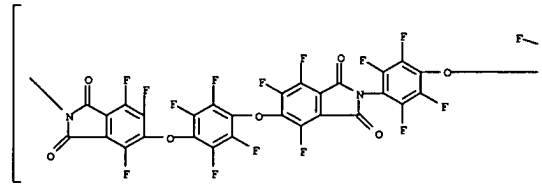
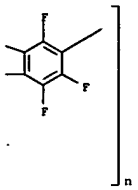


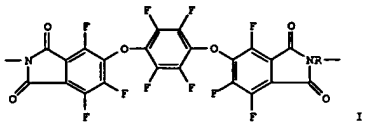
L56 ANSWER 75 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



I

AB The title polyimides suitable for optical materials for optoelectronic integrated circuits contain repeating units I (R = divalent organic group containing ≥1 H). 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluoroben zene dianhydride was polymerized with 2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl in AcNMe2, and the resulting polyamic acid solution was coated on a Si wafer and subjected to thermal imidation to give a polyimide film with very low absorption of light in the 0.8-2.0 μm wavelength range.

ACCESSION NUMBER: 1993:428840 CAPLUS
DOCUMENT NUMBER: 119:28840
TITLE: Fluorine-containing polyamic acids, fluorine-containing polyimides, and manufacture thereof
INVENTOR(S): Sasaki, Shigekuni; Matsura, Toru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

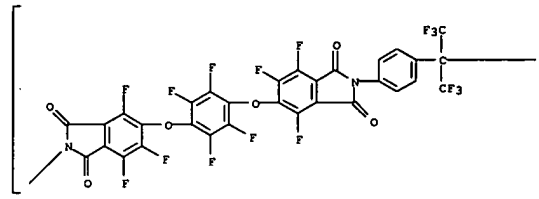
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04314732	A2	19921105	JP 1991-106484	19910412
JP 2827058	B2	19981118		
PRIORITY APPLN. INFO.:			JP 1991-106484	19910412

IT **148362-03-2P 148362-04-3P 148362-05-4P**
148362-06-5P 148383-89-5P 148446-36-0P
148446-37-1P 148446-38-2P 148446-39-3P
148446-40-6P 148446-41-7P 148446-42-8P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, for optical materials for optoelectronic circuits)

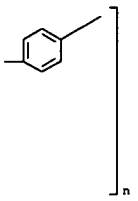
RN 148362-03-2 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-A

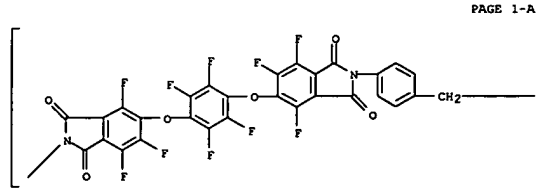


PAGE 1-B



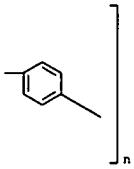
RN 148362-04-3 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



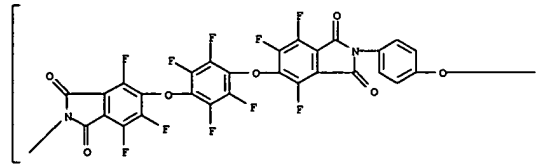
L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B

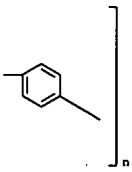


RN 148362-05-4 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

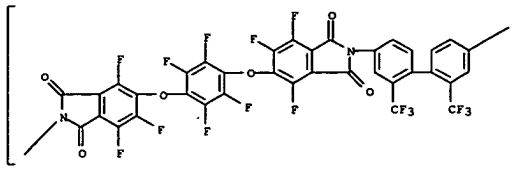


PAGE 1-B



RN 148362-06-5 CAPLUS
CN Poly[{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl}oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diyl]] (9CI) (CA INDEX NAME)

PAGE 1-A



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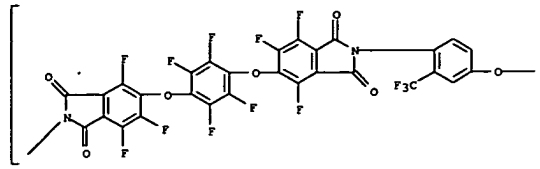
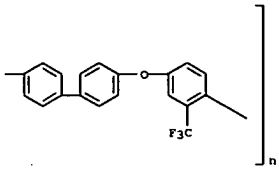
RN 148383-89-5 CAPLUS
CN Poly[{4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl}oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2-(trifluoromethyl)-1,4-phenylene]oxy[1,1'-biphenyl]-4,4'-diyloxy[3-(trifluoromethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)

PAGE 1-A



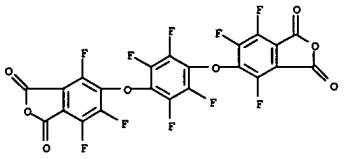
PAGE 1-B



RN 148446-36-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

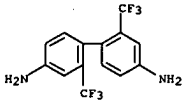
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

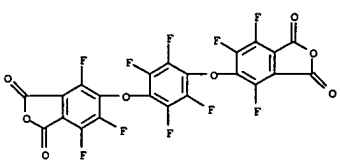
CRN 341-58-2
CMF C14 H10 F6 N2



RN 148446-37-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[benzenamine] (9CI) (CA INDEX NAME)

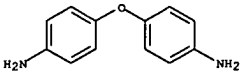
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

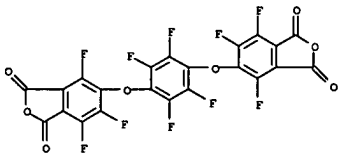
CRN 101-80-4
CMF C12 H12 N2 O



RN 148446-38-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-methylenebis[benzenamine] (9CI) (CA INDEX NAME)

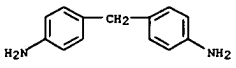
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

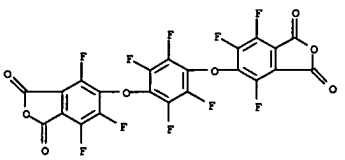
CRN 101-77-9
CMF C13 H14 N2



RN 148446-39-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-[[1,1'-biphenyl]-4,4'-diylbis(oxy)]bis[2-(trifluoromethyl)benzenamine] (9CI) (CA INDEX NAME)

CM 1

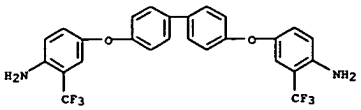
CRN 143363-91-1
CMF C22 F10 O8



CM 2

L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

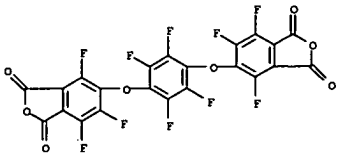
CRN 94517-23-4
CMF C26 H18 F6 N2 O2



RN 148446-40-6 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[benzenamine] (9CI) (CA INDEX NAME)

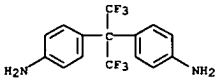
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

CRN 1095-78-9
CMF C15 H12 F6 N2

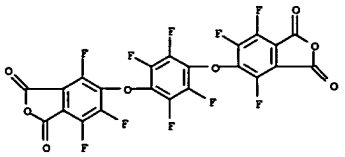


RN 148446-41-7 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine and 5,5'-[2,2,2-trifluoro-

L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1-(trifluoromethyl)ethylidene]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

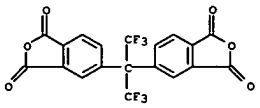
CM 1

CRN 143363-91-1
CMF C22 F10 O8



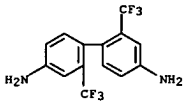
CM 2

CRN 1107-00-2
CMF C19 H6 F6 O6



CM 3

CRN 341-58-2
CMF C14 H10 F6 N2

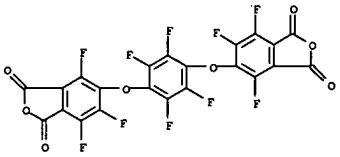


RN 148446-42-8 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,2'-bis(trifluoromethyl)[1,1'-biphenyl]-4,4'-diamine and 4,4'-

L56 ANSWER 76 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
oxybis[benzenamine] (9CI) (CA INDEX NAME)

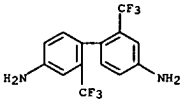
CM 1

CRN 143363-91-1
CMF C22 F10 O8



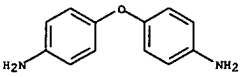
CM 2

CRN 341-58-2
CMF C14 H10 F6 N2



CM 3

CRN 101-80-4
CMF C12 H12 N2 O

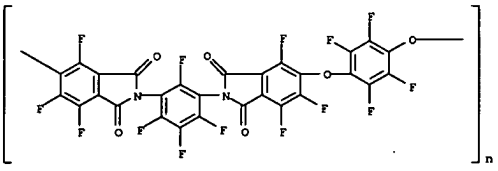


L56 ANSWER 77 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB The filter, comprising a dielec. multibilayer, is characterized in that the substrate consists of a thin-film perfluoropolyimide or a blend or a copolymer thereof.

ACCESSION NUMBER: 1993:417687 CAPLUS
DOCUMENT NUMBER: 119:17687
TITLE: IR longpass dielectric interference filter
INVENTOR(S): Yamamoto, Fumio; Sasaki, Shigekuni; Matsura, Toru; Ando, Shinji; Oguchi, Taisuke
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328502	A2	19921117	JP 1991-125451	19910426
PRIORITY APPLN. INFO.:			JP 1991-125451	19910426

IT **143433-45-8 148273-08-9**
RL: USES (Uses)
(fluorinated polyimide blends containing, IR longpass filters containing)
RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

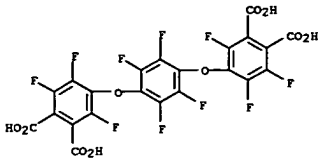


RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

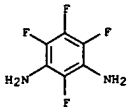
CRN 143363-92-2
CMF C22 H4 F10 O10

L56 ANSWER 77 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



L56 ANSWER 78 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
AB Polyamic acids are prepared from perfluoroarom. carboxylic acid dianhydrides and perfluoroarom. diamines, mixed with fluoropolymers, and thermally cyclized. Thus, 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene dianhydride-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer (polyamic acid) was prepared, mixed (4 g) with cyclohexanone, Lublon 0.4, and Fluorad 431 (a surfactant) 0.1 g, spin-coated on Al, and imidized to give a film having dielec. constant <2.5 at 1 kHz.

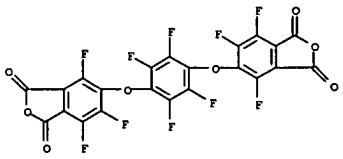
ACCESSION NUMBER: 1993:410132 CAPLUS
DOCUMENT NUMBER: 119:10132
TITLE: Fluoropolymer-containing polyamic acids and polyimides and films therefrom with low dielectric constants
INVENTOR(S): Sasaki, Shigekuni; Matsura, Toru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328161	A2	19921117	JP 1991-122850	19910426
PRIORITY APPLN. INFO.:			JP 1991-122850	19910426

IT **143376-22-1 143376-23-2 143433-46-9 143433-47-0**
RL: USES (Uses)
(films, containing PTFE, with low dielec. constant)
RN 143376-22-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,3,5,6-tetrafluoro-1,4-benzenediamine (9CI) (CA INDEX NAME)

CM 1

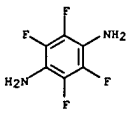
CRN 143363-91-1
CMF C22 F10 O8



CM 2

L56 ANSWER 78 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

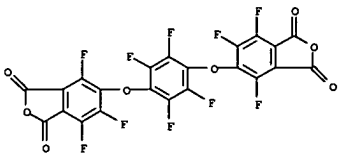
CRN 1198-64-7
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

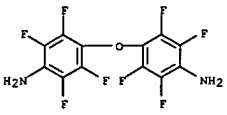
CM 1

CRN 143363-91-1
CMF C22 F10 O8

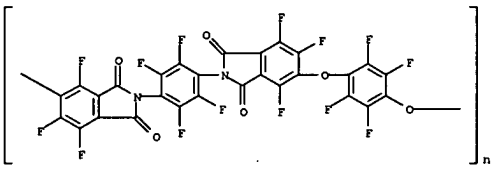


CM 2

CRN 20115-19-9
CMF C12 H4 F8 N2 O

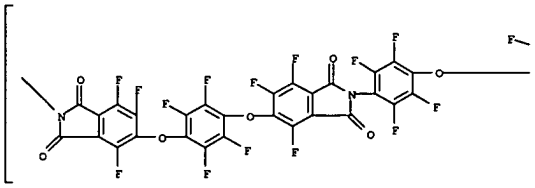


RN 143433-46-9 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



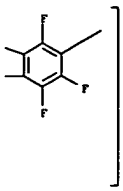
RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L56 ANSWER 78 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 79 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB A perfluorinated polyimide that has glass temperature >300° and high optical transparency over the entire optical communication wavelengths was synthesized. The high thermal stability and optical transparency in near-IR region are due to the fully aromatic mol. structure and the absence of C-H bonds. The use of a diamine with relatively high reactivity and a new perfluorinated dianhydride, which has flexible structure, makes it possible to obtain a tough and flexible perfluorinated polyimide film. In addition, this polymer has a low dielec. constant Perfluorinated polyimides are promising for use as optical-electronic materials.

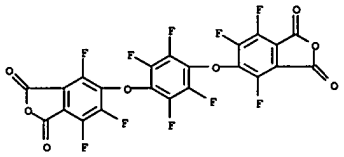
ACCESSION NUMBER: 1992:592808 CAPLUS
DOCUMENT NUMBER: 117:192808
TITLE: Perfluorinated polyimide synthesis
AUTHOR(S): Ando, Shinji; Matsuura, Tohru; Sasaki, Shigekuni
CORPORATE SOURCE: Interdiscip. Res. Lab., NTT, Musashino, 180, Japan
SOURCE: Macromolecules (1992), 25(21), 5858-60
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **143376-21-0P 143433-45-8P**
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of, for optical materials)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

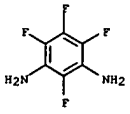
CM 1

CRN 143363-91-1
CMF C22 F10 O8

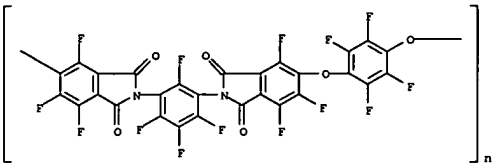


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

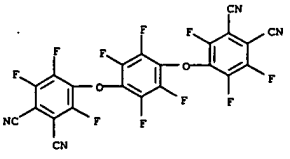


RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)



IT **143376-50-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

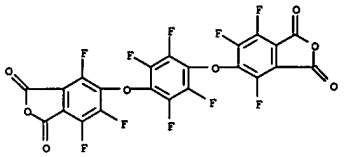
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-91-1P**
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and polymerization of)

L56 ANSWER 79 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



L56 ANSWER 80 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

AB The title polymers, useful as waveguidees in optoelectronic integrated circuits or optoelec. boards, are prepared from perfluoro tetracarboxylic acid derivs. and perfluoro diamines, the preparation of which is described. Polymerization of 4,4'-(tetrafluoro-p-phenylene)bis(3,5,6-trifluorophthalic anhydride) with tetrafluoro-1,3-phenylenediamine gave a polymer with no substantial absorption at optical communication wavelengths.

ACCESSION NUMBER: 1992:531752 CAPLUS
DOCUMENT NUMBER: 117:131752
TITLE: Monomers for preparation of perfluorinated polyamic acids and polyimides
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

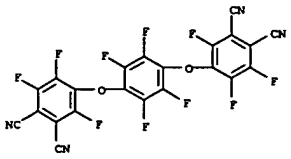
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 480266	A2	19920415	EP 1991-116553	19910927
EP 480266	A3	19930901		
EP 480266	B1	19960626		
R: DE, FR, GB				
JP 05001148	A2	19930108	JP 1991-235020	19910913
JP 2851019	B2	19990127		
JP 09031014	A2	19970204	JP 1996-207475	19910913
CA 2052368	AA	19920329	CA 1991-2052368	19910926
CA 2052368	C	19980915		
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		

PRIORITY APPLN. INFO.:

JP 1990-256843	A	19900928
JP 1991-106552	A	19910412
JP 1991-106554	A	19910412
JP 1991-106557	A	19910412
JP 1991-235020	A3	19910913
CA 1991-2052368	A3	19910926
US 1991-765672	A3	19910926
US 1993-54973	B2	19930430
US 1993-140482	A3	19931025
US 1995-451465	B1	19950526
US 1996-718208	A3	19960920

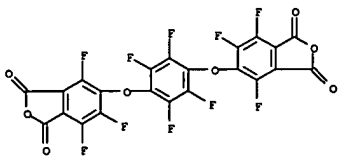
IT **143376-50-5P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

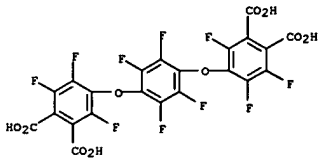


IT **143363-91-1P 143363-92-2P**
RL: PREP (Preparation)
(preparation of)

RN 143363-91-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro- (9CI) (CA INDEX NAME)



RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

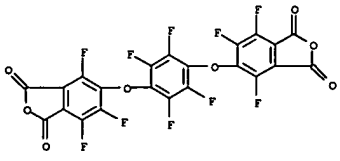


IT **143376-21-0P 143376-22-1P 143376-23-2P**
143376-24-3P 143433-45-8P 143433-46-9P
143433-47-0P 143433-48-1P
RL: PREP (Preparation)
(preparation of, for use in optical communications)

RN 143376-21-0 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

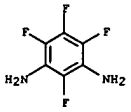
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

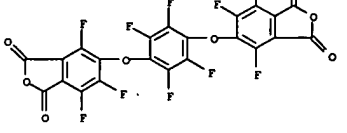
CRN 1198-63-6
CMF C6 H4 F4 N2



RN 143376-22-1 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 2,3,5,6-tetrafluoro-1,4-benzenediamine (9CI) (CA INDEX NAME)

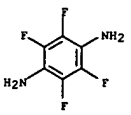
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

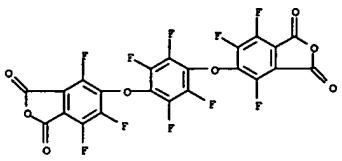
CRN 1198-64-7
CMF C6 H4 F4 N2



RN 143376-23-2 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-oxybis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

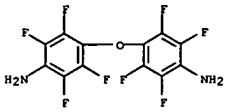
CM 1

CRN 143363-91-1
CMF C22 F10 O8



CM 2

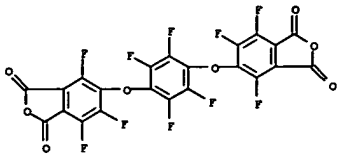
CRN 20115-19-9
CMF C12 H4 F8 N2 O



RN 143376-24-3 CAPLUS
CN 1,3-Isobenzofurandione, 5,5'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[4,6,7-trifluoro-, polymer with 4,4'-thiobis[2,3,5,6-tetrafluorobenzenamine] (9CI) (CA INDEX NAME)

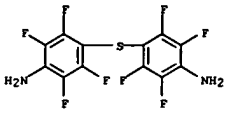
CM 1

CRN 143363-91-1
CMF C22 F10 O8

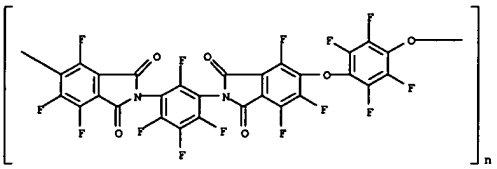


CM 2

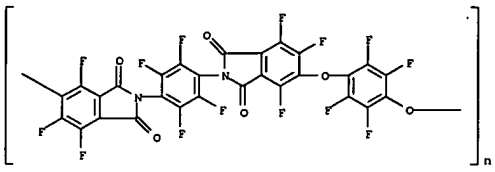
CRN 61907-46-8
CMF C12 H4 F8 N2 S



RN 143433-45-8 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,4,5,6-tetrafluoro-1,3-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

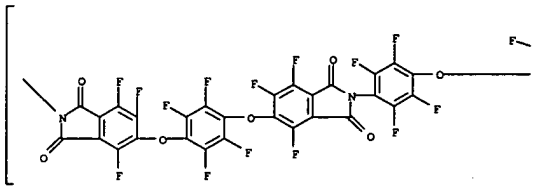


RN 143433-46-9 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy] (9CI) (CA INDEX NAME)

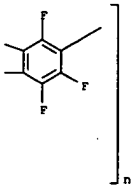


RN 143433-47-0 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

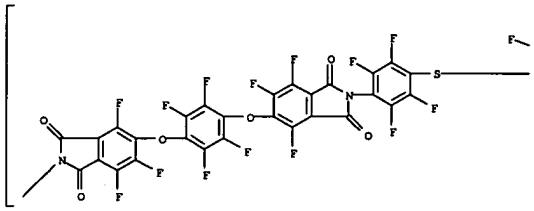


PAGE 1-B



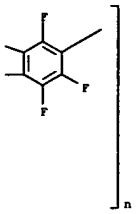
RN 143433-48-1 CAPLUS
CN Poly[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)oxy(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(2,3,5,6-tetrafluoro-1,4-phenylene)thio(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A

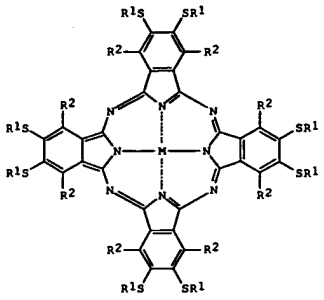


L56 ANSWER 80 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L56 ANSWER 81 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB The compds. have the general formula I [each R1 = alkyl, alkoxyalkyl, acyloxyalkyl, (un)substituted Ph, cycloalkyl, benzyl; ≥1 of R2 = alkoxy, alkoxyalkoxy, acyloxyalkoxy, hydroxyalkoxy, aminoalkoxy, cyanoalkoxy, alkoxycarbonylalkoxy, haloalkoxy, (un)substituted phenoxy, cycloalkoxy, benzyloxy, the remaining R2 being F; M = Zn, Cu, Pb, VO, TiO, TiX2, SnX2, AlX, InX; X = halogen] and are prepared by reacting I (R2 = F) with alkoxide, alc, or phenol derivs. in an organic solvent in the optional presence of alkali. I (R1 = Bu; R2 = F; M = VO) was treated with NaOEt in DMF under reflux for 2 h to give I (R1 = Bu; R2 = EtO; M = VO) in 75.1% yield, λmax (DMF) 760 nm.

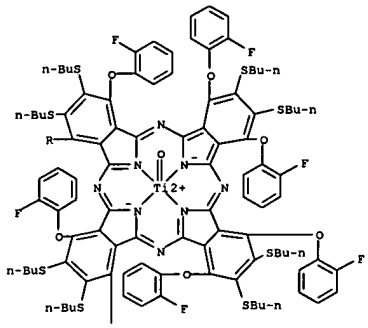
ACCESSION NUMBER: 1992:428767 CAPLUS
DOCUMENT NUMBER: 117:28767
TITLE: Phthalocyanines, their manufacture, and use as near-IR absorbers
INVENTOR(S): Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04039361	A2	19920210	JP 1990-144292	19900604
PRIORITY APPLN. INFO.:			JP 1990-144292	19900604

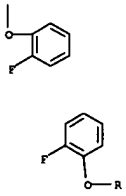
L56 ANSWER 81 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

IT 142111-01-1P
RL: PREP (Preparation)
(manufacture of near-IR-absorbing)
RN 142111-01-1 CAPLUS
CN Titanium, [2,3,9,10,16,17,23,24-octakis(butylthio)-1,4,8,11,15,18,22,25-octakis(2-fluorophenoxy)-29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]oxo-, (SP-5-12)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L56 ANSWER 81 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L56 ANSWER 82 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

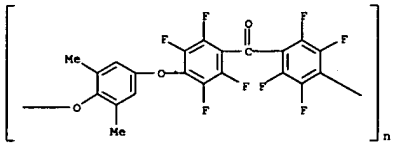
AB The title polymers, e.g., polyether-polyketones, polyarylates, polyimides,
and polyesters, have good heat resistance and low attenuation and are useful as optical transmitting systems, e.g., for controlling ignition timing and fuel metering systems for internal combustion engines in automobiles. Thus, an optical fiber comprised a core of amorphous PEEK and a sheath of poly(2,2,2-trifluoroethyl methacrylate).

ACCESSION NUMBER: 1992:130739 CAPLUS
DOCUMENT NUMBER: 116:130739
TITLE: Amorphous polymers for optical transmitting systems and optical members and their use
INVENTOR(S): Takezawa, Yoshitaka; Ohara, Shuichi; Tanno, Seikichi; Taketani, Noriaki; Shimura, Masato
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 454165	A2	19911030	EP 1991-106851	19910426
EP 454165	A3	19930120		
R: DE, FR, GB, IT, NL				
JP 04009805	A2	19920114	JP 1990-112511	19900427
JP 2854669	B2	19990203		
US 5093888	A	19920303	US 1991-686997	19910418

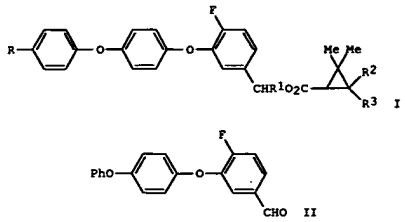
PRIORITY APPLN. INFO.: JP 1990-112511 A 19900427

IT **138687-03-3**
RL: USES (Uses)
(optical fibers, heat-resistant, for engine control systems)
RN 138687-03-3 CAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)



L56 ANSWER 83 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB Benzyl cyclopropanecarboxylates I (R = H, F, Cl, Br; R1 = H, cyano, C.tplbond.CH; R2 = H, Me; R3 = CH:CCl2, CHBrCBrCl2, CHBrCBr3, Me), having insecticidal and acaricidal activities at 500 ppm with low fish toxicity, were prepared e.g. from II. Thus, 6.0 mmol NaCN and 0.88 mmol PhCH2NEt3Cl in H2O was treated dropwise with 4.0 mmol II and 4.2 mmol dl-cis,trans-2,2-dimethyl-3-(2,2-dichlorovinyl)cyclopropanecarbonyl chloride in PhMe to give 1.93 g I (R = R2 = H, R1 = cyano, R3 = CH:CCl2).

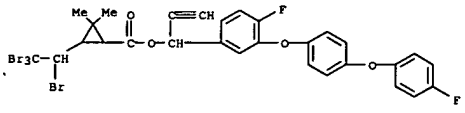
ACCESSION NUMBER: 1984:610760 CAPLUS
DOCUMENT NUMBER: 101:210760
TITLE: Insecticidal cyclopropanecarboxylate esters
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59134749	A2	19840802	JP 1983-8536	19830120

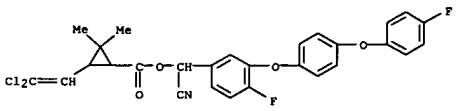
PRIORITY APPLN. INFO.: JP 1983-8536 19830120

IT **90928-31-7P 93207-48-8P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and insecticidal activity of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

L56 ANSWER 83 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

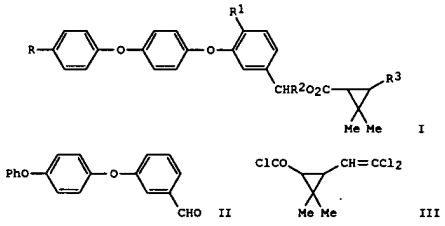


RN 93207-48-8 CAPLUS
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]methyl ester (9CI) (CA INDEX NAME)



L56 ANSWER 84 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN

GI



AB Twelve title esters (I; R = H, halo; R1 = H, F; R2 = H, cyano, HC.tplbond.C, R3 = halovinyl, haloethyl), effective insecticides and miticides at 500 ppm, were prepared Thus, 5.0 mmol II and 5.25 mmol (±)-III in MePh were added to a solution of 7.5 mmol NaCN and 1.1 mmol PhCH2N+Et3 Cl- in H2O at room temperature to give 2.07 g (±)-I (R = R1 = H; R2 = cyano, R3 = Cl2C:CH).

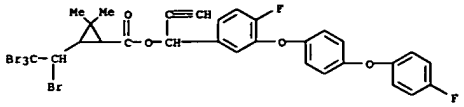
ACCESSION NUMBER: 1984:438168 CAPLUS
DOCUMENT NUMBER: 101:38168
TITLE: Cyclopropanecarboxylate esters as insecticides and miticides with low toxicity
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59042342	A2	19840308	JP 1982-153029	19820901

PRIORITY APPLN. INFO.: JP 1982-153029 19820901

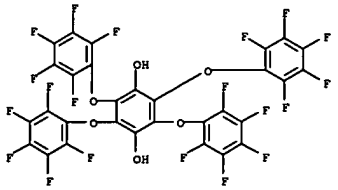
IT **90928-31-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

L56 ANSWER 84 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L56 ANSWER 85 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).

ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **53279-71-3P 53359-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53279-71-3 CAPLUS
CN 1,4-Benzenediol, 2,3,5,6-tetrakis(pentafluorophenoxy)- (9CI) (CA INDEX NAME)

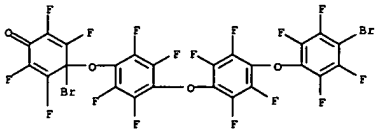


RN 53359-93-6 CAPLUS
CN Phenol, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)

<------User Break------>

L56 ANSWER 86 OF 89 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The controlled oxidation of perhalo p-bromophenols (I), (II), and (III) gives the corresponding perhalo polyethers (IV); the perchloro 4-aryloxycyclohexa-2,5-dienone (V) is obtained from pentachlorophenol (VI). Similarly, VII gives VIII and 4-chloro-2,3,5,6-tetrabromophenol gives IX.

ACCESSION NUMBER: 1971:111698 CAPLUS
DOCUMENT NUMBER: 74:111698
TITLE: Oxidation of pentahalo benzenic phenols
AUTHOR(S): Denivelle, Leon; Lampel, Alfred
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conserv. Natl. Aris Metiers, Paris, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1971), 272(7), 653-6
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **31404-37-2P 31404-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31404-37-2 CAPLUS
CN 2,5-Cyclohexadien-1-one, 4-bromo-4-[4-[4-(4-bromo-2,3,5,6-tetrafluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)



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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    430.68    4422.25

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -63.51    -329.23

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DICTIONARY FILE UPDATES:  10 JAN 2005  HIGHEST RN 811411-12-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                      0.86    4423.11

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CA SUBSCRIBER PRICE                                      0.00    -329.23

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STRUCTURE FILE UPDATES:   10 JAN 2005  HIGHEST RN 811411-12-8
DICTIONARY FILE UPDATES:  10 JAN 2005  HIGHEST RN 811411-12-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.
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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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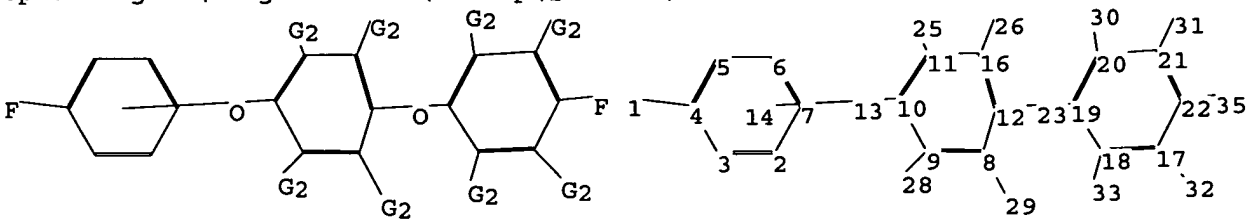

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ring nodes :
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ring bonds :
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exact/norm bonds :
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exact bonds :
1-4 22-35
normalized bonds :
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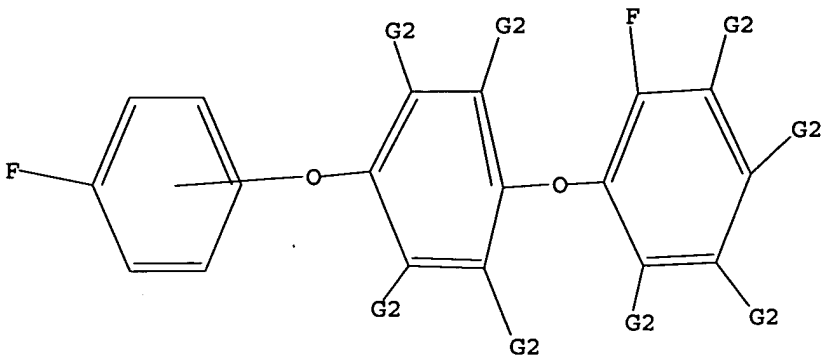
G1:N,X

G2:X,Ak,H

Match level :
1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 25:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 35:CLASS

L57 STRUCTURE UPLOADED

=> d query
L57 STR



G1 N,X

G2 X,Ak,H

Structure attributes must be viewed using STN Express query preparation.

```
=> s l57
SAMPLE SEARCH INITIATED 20:34:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    110 TO ITERATE

100.0% PROCESSED     110 ITERATIONS                              3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         1571 TO     2829
PROJECTED ANSWERS:               3 TO      163

L58           3 SEA SSS SAM L57

=> s l57 full
FULL SEARCH INITIATED 20:34:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   2122 TO ITERATE

100.0% PROCESSED    2122 ITERATIONS                             29 ANSWERS
SEARCH TIME: 00.00.01

L59          29 SEA SSS FUL L57

=> fil caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               161.33    4584.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                0.00    -329.23

FILE 'CAPLUS' ENTERED AT 20:34:35 ON 12 JAN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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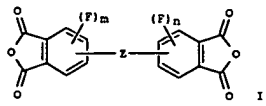
FILE COVERS 1907 - 12 Jan 2005 VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005 (20050111/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l59
L60 32 L59

=> d l60 1-32 abs ibib hitstr

L60 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB This invention pertains to a method for producing bis(fluorine-containing phthalic anhydride) derivs. I [wherein m = 1-3; n = 1-3; Z = a single bond or a spacer], which comprises reacting a fluorine-containing dinitrile with a fluorine-containing hydroquinone, followed by hydrolysis and dehydration reaction. For example, 3,4,5,6-tetrafluorophthalonitrile was reacted with tetrafluorohydroquinone in Me iso-Bu ketone in the presence of KF to give the bisphthalonitrile (97%). The bisphthalonitrile was hydrolyzed in propionic acid in the presence of H2SO4 to afford the bis(phthalic acid) (75%). The bis(phthalic acid) was treated with acetic anhydride to provide the bis(phthalic anhydride) (98%).

ACCESSION NUMBER: 2004:1127358 CAPLUS
TITLE: Process for preparation of bis(fluorine-containing phthalic anhydride)
INVENTOR(S): Masuda, Go; Okumura, Yasunori; Nishimae, Shinji; Naraya, Toshihiro
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

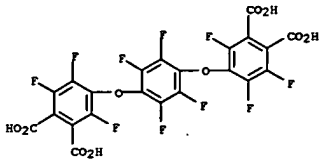
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111026	A1	20041223	WO 2004-JP8829	20040617

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

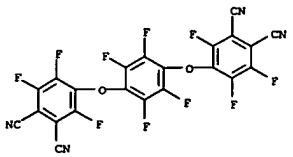
PRIORITY APPLN. INFO.: JP 2003-172046 A 20030617
JP 2003-201123 A 20030724

IT **143363-92-2P 143376-50-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic

L60 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of bis(fluorine-contg. phthalic anhydride))
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB The compns. containing repeating units of AD(R) [A = F-substituted (O- or S-containing) hydrocarbylene; D = F-substituted (O- or S-containing) trivalent hydrocarbon group; R = Si(OR1)(OR2)R3; R1, R2 = hydrocarbyl (each b.p. of R1OH and R2OH under normal pressure ≤250°); R3 = (F-substituted) double bond-terminated hydrocarbyl] show n and dielec. constant of their cured products 1.350-1.600 and 2.00-4.00, resp. The compns. give cured products with adjustable n and dielec. constant, and improved mech. properties and solvent resistance.

ACCESSION NUMBER: 2004:411677 CAPLUS
DOCUMENT NUMBER: 140:431126
TITLE: Manufacture of silicon-containing curable polymer compositions for planar optical waveguides and wiring boards
INVENTOR(S): Florence, Corey Nawarage
PATENT ASSIGNEE(S): Fujitsu Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

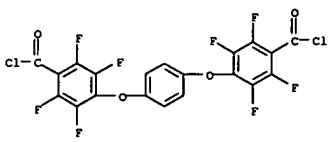
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143280	A2	20040520	JP 2002-309280	20021024

PRIORITY APPLN. INFO.: JP 2002-309280 20021024

IT **691906-05-5DP**, reaction products with allyltrichlorosilane and ethanol
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(crosslinked; manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)
RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

CM 1

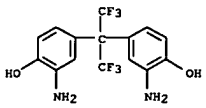
CRN 691906-04-4
CMF C20 H4 Cl2 F8 O4



L60 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

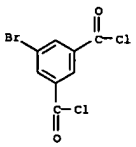
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

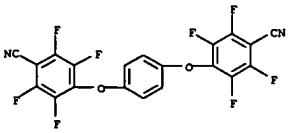


CM 3

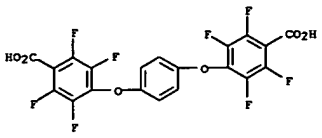
CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



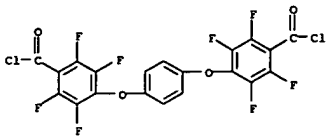
IT **691906-02-2P 691906-03-3P 691906-04-4P**
691906-05-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)
RN 691906-02-2 CAPLUS
CN Benzonitrile, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 691906-03-3 CAPLUS
CN Benzoic acid, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



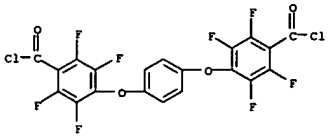
RN 691906-04-4 CAPLUS
CN Benzoyl chloride, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

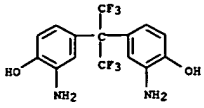
CM 1

CRN 691906-04-4
CMF C20 H4 C12 F8 O4



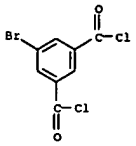
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

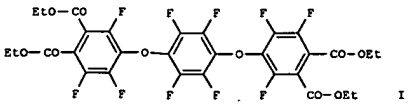


CM 3

CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



GI



I

AB The title phthalic acid derivs. (Markush structure given) are prepared by reaction of tetrafluorophthalic acid derivs. with MAM [A = divalent organic moiety; M = H, et.]. Thus, I was prepared I is a raw material for the manufacture of fluorinated polyimides. The title phthalic acid derivs. are useful as intermediates for optical materials, liquid crystals, etc.

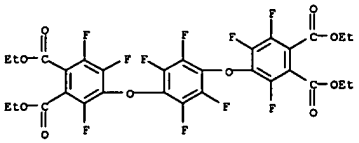
ACCESSION NUMBER: 2003:823334 CAPLUS
DOCUMENT NUMBER: 139:330642
TITLE: Phthalic acid derivatives as intermediates for halogenated polyimides, liquid crystals, etc., and process for manufacturing them
INVENTOR(S): Okumura, Yasunori; Kuwahara, Masayoshi; Masuda, Takeshi
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003300934	A2	20031021	JP 2002-108095	20020410
PRIORITY APPLN. INFO.:			JP 2002-108095	20020410

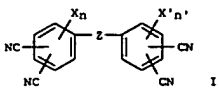
OTHER SOURCE(S): MARPAT 139:330642

IT **615263-86-0P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(phthalic acid derivs. as intermediates for halogenated polyimides, optical materials, liquid crystals, and process for manufacturing them)

RN 615263-86-0 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, tetraethyl ester (9CI) (CA INDEX NAME)



L60 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

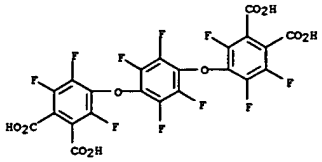
AB The compds. are prepared by hydrolysis of aromatic tetranitriles I (X, X' =
halo; n, n' = 1-3; Z = single bond, O, S, O-p-C6H4-mY=O, etc; Y = halo; m = 1-4) in the presence of acids in organic solvents. 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzene was treated with H2SO4 in propionic acid under reflux for 6 h to give 95.7% 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene.

ACCESSION NUMBER: 2002:886125 CAPLUS
DOCUMENT NUMBER: 137:384650
TITLE: Preparation of halogen-containing aromatic carboxylic acids
INVENTOR(S): Kuwahara, Masayoshi; Yokoo, Junko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

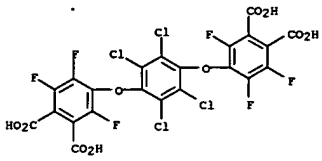
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002332253	A2	20021122	JP 2001-142027	20010511
JP 3490407	B2	20040126		
PRIORITY APPLN. INFO.:			JP 2001-142027	20010511

OTHER SOURCE(S): MARPAT 137:384650
IT **143363-92-2P 474805-31-7P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of halogen-containing aromatic carboxylic acids)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

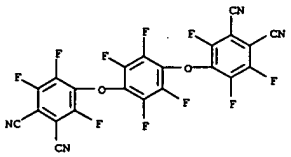
L60 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

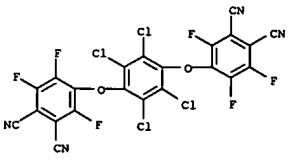


IT **143376-50-5**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzen e
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **474805-29-3P**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenze ne
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)

L60 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



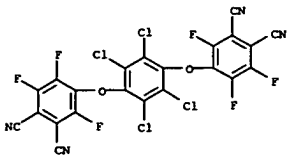
L60 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB The present invention relates to halogen-containing aromatic compds. and methods
thereof. The present invention relates a halogen-containing aromatic acid
dianhydride, halogen-containing aromatic tetranitrile compound, halogen-containing
m-phenylenediamine compound and fluorine compound, and a method thereof. Tetrafluorophthalonitrile was reacted with tetrachlorohydroquinone in the presence of potassium fluoride and acetonitrile to give 1,4-bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenzene.

ACCESSION NUMBER: 2002:866679 CAPLUS
DOCUMENT NUMBER: 137:354701
TITLE: Halogen-containing aromatic compound
INVENTOR(S): Kuwabara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan; Nippon Catalytic Chem. Ind.
SOURCE: Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

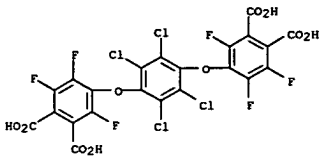
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1256564	A1	20021113	EP 2002-253088	20020501
EP 1256564	B1	20040728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002332268	A2	20021122	JP 2001-142028	20010511
JP 2002332281	A2	20021122	JP 2001-142029	20010511
JP 2002332264	A2	20021122	JP 2001-142031	20010511
JP 3563040	B2	20040908		
JP 2002332254	A2	20021122	JP 2001-142032	20010511
US 2003018204	A1	20030123	US 2002-133158	20020426
EP 1462436	A1	20040929	EP 2004-10371	20020501
R: DE, FR, GB				
CN 1385427	A	20021218	CN 2002-119176	20020513
PRIORITY APPLN. INFO.:			JP 2001-142028	A 20010511
			JP 2001-142029	A 20010511
			JP 2001-142031	A 20010511
			JP 2001-142032	A 20010511
			EP 2002-253088	A3 20020501

OTHER SOURCE(S): MARPAT 137:354701
IT **474805-29-3P 474805-31-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(halogen-containing aromatic compound)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



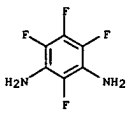
RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L60 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L60 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB The repeating units of polyimides for coating materials contain tetravalent aromatic organic groups and aromatic groups having no CH bonds. Thus, a film of 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer had dielec. constant 2.6 at 1 MHz, compared with 3.5 for a com. polyimide.

ACCESSION NUMBER: 2002:139034 CAPLUS
DOCUMENT NUMBER: 136:185465
TITLE: Insulating coating materials for coil wire
INVENTOR(S): Tajiri, Kozo; Kuwahara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

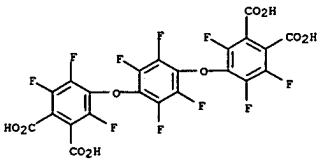
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002056720	A2	20020222	JP 2000-243309	20000810
PRIORITY APPLN. INFO.:			JP 2000-243309	20000810

IT **148273-08-9**, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fluoro polyimide insulating coating materials for coil wire)

RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 143363-92-2
CMF C22 H4 F10 O10



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

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AB The compds. QCO-p-C6H4O-p-C6H4R (Q = 2,3,4,5,6-pentafluorophenyl; R = OH, COQ) are manufactured. Thus, 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone (prepared from 2,3,4,5,6-pentafluoro-4'-methoxybenzophenone) was polymerized in dimethylacetamide at 160° to give a polymer showing good solubility in dimethylacetamide and m-cresol, 10% weight loss (in air) temperature 421°.

ACCESSION NUMBER: 2001:176773 CAPLUS
DOCUMENT NUMBER: 134:208664
TITLE: (2,3,4,5,6-pentafluorobenzoyl)diphenyl ethers and fluorine-containing aryl ether ketone polymers having high solubility and heat stability
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Casiday, Rachel E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001064226	A2	20010313	JP 1999-183950	19990629
PRIORITY APPLN. INFO.:			US 1998-106270 A	19980629
			JP 1999-180091 A	19990625

IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
((pentafluorobenzoyl)phenyl ether as monomers for F-containing aryl ether ketone polymers having high solubility and heat stability)

RN 213693-15-3 CAPLUS
CN Poly(oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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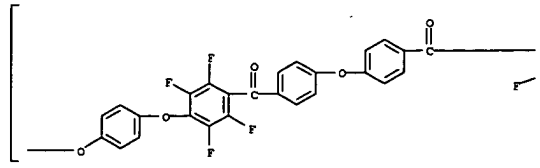
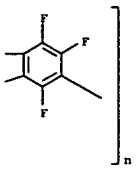


L60 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L60 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB The compns., useful for elec. insulating materials, contain (p-C6F4COC6H4-qXqOR1m)n [R1 = C6H4-rX'r(CO-p-C6F4OR2)pO; R2 = divalent aryl; X, X' = halo, lower alkyl, alkoxy; q, r = 0-4; m,p = 0, 1]. Thus, 2,2-bis(4-hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane was polymerized with 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl)diphenyl ether to give a polymer showing dielec. constant 3.06 at 25°, 10% weight loss temperature 524° under N, and Tg 174°.

ACCESSION NUMBER: 2001:124290 CAPLUS
DOCUMENT NUMBER: 134:179345
TITLE: Low dielectric fluorinated aromatic polyether ketone compositions with good heat resistance
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001049110	A2	20010220	JP 1999-226981	19990810
JP 3539897	B2	20040707		
PRIORITY APPLN. INFO.:			JP 1999-226981	19990810

IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low dielec. fluorinated aromatic polyether ketone compns. with good heat resistance)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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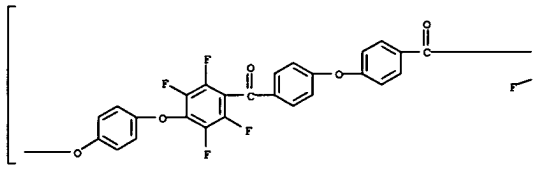

L60 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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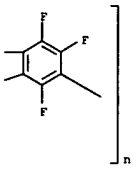

L60 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB Ketonic di-Ph ethers of p-R1COC6H4OC6H4R2-p type compds. (R1 = 2,3,4,5,6-pentafluorobenzoyl; R2 = OH, pentafluorobenzoyl group) and polyether-polyketone polymers containing tetrafluorophenylene and phenylene groups are provided which have good mech. strength, toughness, elec. property, thermal oxidative stability and solubility Thus, heating 0.5 g 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone with 0.36 ground K carbonate, 2 mL N-methyl-2-pyrrolidone and 1 mL PhMe at 160° while stirring for 3 h gave a polymer at 85% yield and having viscosity 0.5 g/dL in AcNMe2.

ACCESSION NUMBER: 2001:25791 CAPLUS
DOCUMENT NUMBER: 134:86663
TITLE: (2,3,4,5,6-Pentafluorobenzoyl)diphenyl ether compound, and fluorine-containing aryl ether ketone polymer
INVENTOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 106,270, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6172181 B1		20010109	US 1999-354976	19990716
PRIORITY APPLN. INFO.:			US 1998-106270	19980629
OTHER SOURCE(S):	MARPAT 134:86663			

IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(manufacture of (2,3,4,5,6-pentafluorobenzoyl)diphenyl ether compound and fluorine-containing aryl ether ketone polymer)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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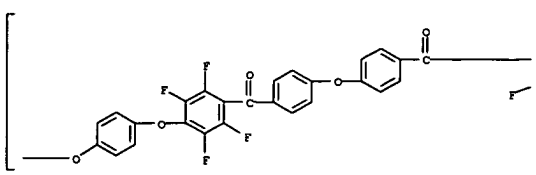

L60 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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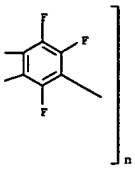

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L60 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB Fluoropolymer-polyether-polyketones were obtained by homopolycondensation of 4-hydroxy-4'-(pentafluorobenzoyl)diphenyl ether and by copolycondensation of 4,4'-bis(pentafluorobenzoyl)diphenyl ether with benzenediols or bisphenols. The polymers have very good heat resistance, with 10% weight loss temps. ≥500°.

ACCESSION NUMBER: 1998:532324 CAPLUS
DOCUMENT NUMBER: 129:260978
TITLE: New polymers derived from 2,3,4,5,6-pentafluorobenzoic acid
AUTHOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu; Sakaguchi, Yoshimitu
CORPORATE SOURCE: Faculty of Environmental Science and Technology, Okayama University, Okayama, 700-8530, Japan
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 790-791
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

IT 213693-15-3P, 4,4'-Bis(pentafluorobenzoyl)diphenyl ether-hydroquinone copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thermally stable fluoropolymer-polyether-polyketones)

RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

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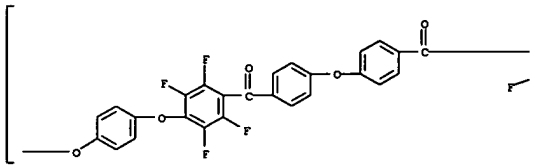

L60 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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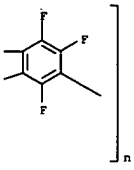


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

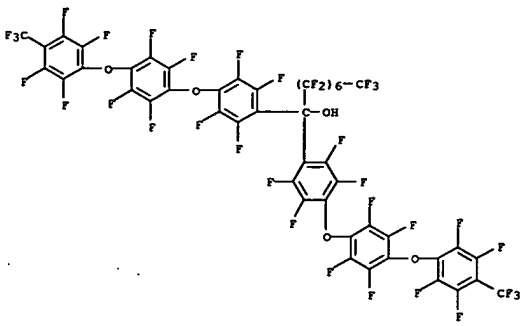
L60 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB Selected perfluorinated tertiary alcs. were reacted with p-toluenesulfonyl chloride to form their p-toluenesulfonyl esters C6F5(CF3)2COSO2C6H4CH3 (I), CF3C6F4OC6F4(C3F7)(C8F17)COSO2C6H4CH3 and (CF3C6F4OC6F4)2(C7F15)COSO2C6H4CH3. The absolute configuration of I is established by X-ray diffraction.

ACCESSION NUMBER: 1998:210377 CAPLUS
DOCUMENT NUMBER: 128:321424
TITLE: p-Toluenesulfonyl esters of perfluorinated tertiary alcohols: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3
AUTHOR(S): Krumm, Burkhard; Vij, Ashwani; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Dep. of Chem., Univ. of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Journal of Fluorine Chemistry (1998), 89(1), 19-22
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 128:321424

IT 207233-54-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3)

RN 207233-54-3 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)



IT 207233-53-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3)
RN 207233-53-2 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]-, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

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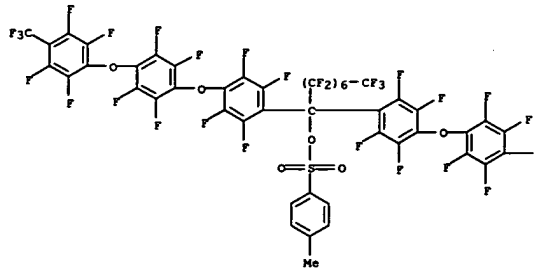

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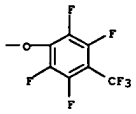
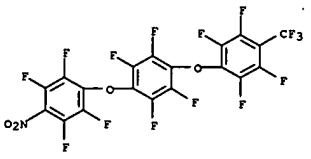
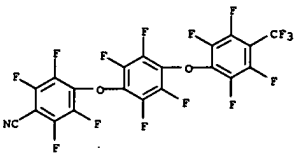


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB Reactions of 4'-CF3C6F4OC6F4Li, generated in situ, with elements of group 16 (S, Se, Te) lead to CF3C6F4OC6F4SH (2), (CF3C6F4OC6F4Se)2 (3), and (CF3C6F4OC6F3Te)2 (4)/(CF3C6F4OC6F3)2Te (4a). The phenol derivative CF3C6F4OC6F4OH (1) is obtained by reaction of CF3C6F4OC6F4Li with B(OMe)3/H2O2. The reaction of CF3C6F4OC6F4Li with trimethylsilyl chloride or trimethyltin chloride gives CF3C6F4OC6F4XMe3 (X = Si (5), Sn (6)). Oxidation of 2 in the presence of bromine results in the formation of (CF3C6F4OC6F4S)2 (7) and CF3C6F4OC6F4SO2Br (8). Mixed perfluoroaryloxo/thio ethers CF3C6F4OC6F4SC6F4R (R = NO2 (9), CN (10), CF3 (11)) and CF3C6F4OC6F4SC5F4N (12) are obtained upon reaction of 2 with excess C6F5R and pentafluoropyridine in the presence of K2CO3. With 4-C6F5OC6F4NO2, a mixture of (2-CF3C6F4OC6F4S)(4-C6F5O)C6F3NO2 (13) and 9 is formed. Reaction of excess 2 with C6F5R gives the 2,4,6-substituted benzenes (CF3C6F4OC6F4S)3C6F2R (R = NO2 (14), CN (15)). The trimethylsilyl ether CF3C6F4OC6F4OSiMe3 (16) is prepared from the reaction of 1 with hexamethyldisilazane. 16 Is a convenient reagent for the preparation of the aryl ethers CF3C6F4OC6F4OC6F4R (R = NO2 (17), CN (18)) and CF3C6F4OC6F4OC5F4N (19) upon reaction with C6F5R and C5F5N. The secondary alcs. CF3C6F4OC6F4CH(C6H5)OH (20) and CF3C6F4OC6F4CH(C6F5)OH (21) are synthesized by the reactions of 5 with benzaldehyde and pentafluorobenzaldehyde in the presence of tetrabutylammonium fluoride as a catalyst. In the synthesis of 21 the byproduct CF3C6F4OC6F4CH(C6F5)OC6F4CHO is also formed and isolated.
ACCESSION NUMBER: 1997:667252 CAPLUS
DOCUMENT NUMBER: 127:293323
TITLE: Synthesis and Chemistry of CF3C6F4OC6F4 Group 14/16 Derivatives
AUTHOR(S): Krumm, Burkhard; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1997), 36(23), 5222-5230
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:293323
IT 197150-21-3P 197150-22-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 197150-21-3 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3-(2,3,5,6-tetrafluoro-4-nitrophenoxy)-6-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



RN 197150-22-4 CAPLUS
CN Benzonitrile, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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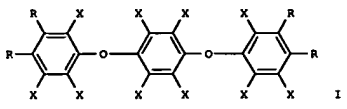


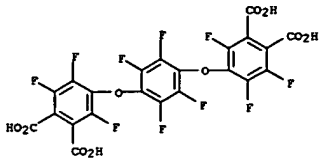
AB Phthalic acids I (R = CO2H; X = halo) are prepared by heating phthalonitriles I (R = cyano; X = halo) in acidic aqueous media, (A) dissolving the products in organic solvent-containing media, (B) separating the products, and (C) treating the isolated products in acidic aqueous media under heating. Then, the above processes A to C are repeated. ≥1 time(s). I (R = cyano, X = F) (10 g) was refluxed with aqueous H2SO4 for 6 h, diluted with H2O, filtered, and the crude product was dissolved in Me2CO. The solution was treated with H2O to give 10.8 g I (R = CO2H, X = F) (II) with purity 91.8%, which was refluxed with H2SO4 for 6 h and similarly treated. The process was repeated to give 9.8 g II with 99.2% purity.

ACCESSION NUMBER: 1997:377463 CAPLUS
DOCUMENT NUMBER: 127:33992
TITLE: Preparation of phthalic acids as intermediates for polyimides from phthalonitriles
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

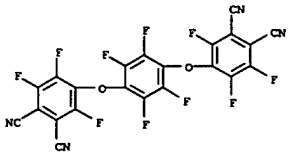
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110785	A2	19970428	JP 1995-266007	19951013
PRIORITY APPLN. INFO.:			JP 1995-266007	19951013

OTHER SOURCE(S): MARPAT 127:33992
IT **143363-92-2P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation and purification of phthalic acids as intermediates for polyimides by acid hydrolysis of phthalonitriles)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and purification of phthalic acids as intermediates for polyimides by acid hydrolysis of phthalonitriles)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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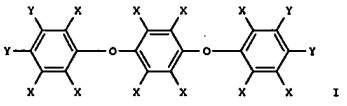


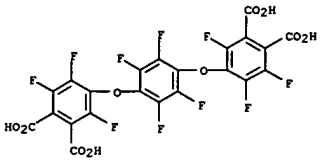
AB Title compds. I (X = halo; Y = CO2H) are prepared by heating I (Y = cyano) in acidic aqueous media, heating the product-containing media with alkaline substances, and separating I (Y = CO2H) from the media by mixing with acidic substances. An aqueous solution containing 10 g I (X = F, Y = cyano) and H2SO4 was refluxed for 6 h, mixing with H2O and NaOH (pH 11.8), refluxed for 1 h, and mixed with aqueous H2SO4 to give 10.8 g I (X = F, Y = CO2H) with 99.2% purity.

ACCESSION NUMBER: 1997:377462 CAPLUS
DOCUMENT NUMBER: 127:33986
TITLE: Preparation of phthalic acids as intermediates for polyimides
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

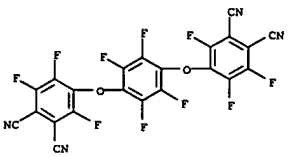
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110784	A2	19970428	JP 1995-266006	19951013
PRIORITY APPLN. INFO.:			JP 1995-266006	19951013

OTHER SOURCE(S): MARPAT 127:33986
IT **143363-92-2P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis of phthalonitriles and heating with alkalies)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis of phthalonitriles and heating with alkalies)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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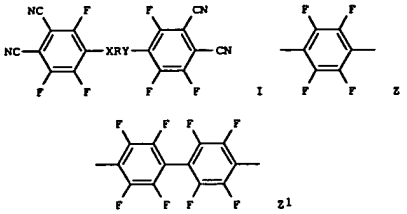


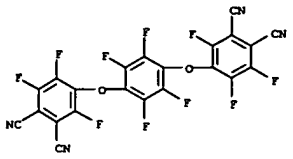
AB The title bisphthalonitriles I (X, Y = O, S; R = Z, Z1), useful as intermediates for optical materials, circuit board materials, photosensitive materials, liquid crystals, etc., are prepared by treatment of 3,4,5,6-tetrafluorophthalonitrile (II) with HXRYH in organic solvents being slightly soluble in H2O in the presence of basic substances, followed by addition of H2O to the reaction products and separation of the organic layer. An AcOEt solution of tetrafluorohydroquinone was added dropwise to a mixture of II, KF, and AcOEt under reflux over 1 h, and the reaction mixture was further stirred under reflux for 8 h, cooled, and then washed with H2O to give 99% I (X = Y = O, R = Z).

ACCESSION NUMBER: 1997:154684 CAPLUS
DOCUMENT NUMBER: 126:157295
TITLE: Preparation of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone or fluorodiphenol
INVENTOR(S): Okumura, Yasunori; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08333322	A2	19961217	JP 1995-143593	19950609
PRIORITY APPLN. INFO.:			JP 1995-143593	19950609

OTHER SOURCE(S): CASREACT 126:157295; MARPAT 126:157295
IT **143376-50-5P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

L60 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(Preparation)
(prepn. of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone, diphenol, or their sulfur analog using slightly water-sol. solvents and basic substances)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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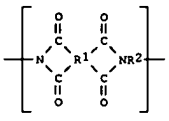


AB Polyimide optical materials comprise a perfluorinated polyimide having a perfluorinated repeating unit represented by the general formula I (R1 = a tetravalent perfluorinated organic group; and R2 = a divalent perfluorinated organic group).

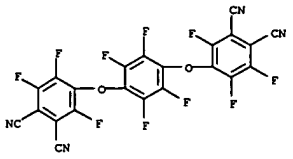
ACCESSION NUMBER: 1995:854348 CAPLUS
DOCUMENT NUMBER: 123:354214
TITLE: Polyimide optical material
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corporation, Japan
SOURCE: U.S., 26 pp. Cont.-in-part of U.S. Ser. No. 54,973, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5449741	A	19950912	US 1993-140982	19931025
JP 09031014	A2	19970204	JP 1996-207475	19910913
US 5233018	A	19930803	US 1991-765672	19910926
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 5750731	A	19980512	US 1996-718208	19960920
US 5849934	A	19981215	US 1998-20573	19980128
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		
PRIORITY APPLN. INFO.:			JP 1990-256843 A	19900928
			JP 1991-106552 A	19910412
			JP 1991-106554 A	19910412
			JP 1991-106557 A	19910412
			US 1991-765672 A3	19910926
			US 1993-54973 B2	19930430
			JP 1991-235020 A3	19910913

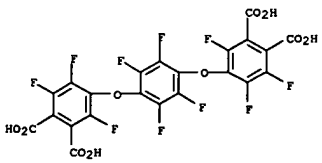
L60 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CA 1991-2052368	A3	19910926
US 1993-140482	A3	19931025
US 1993-140982	A3	19931025
US 1995-451465	A1	19950526
US 1996-718208	A3	19960920
US 1998-20573	A3	19980128

IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyimide optical materials)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-92-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reg; polyimide optical materials)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



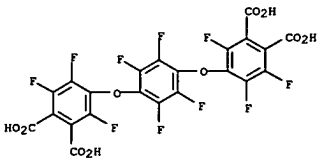
L60 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

AB High resolution fluorine-19 NMR spectra of polyfluoroarom. compds. dissolved in deuterated DMSO were measured and substituent shielding parameters were derived. These parameters were compared with the values observed in deuterated chloroform solns. and used to identify fluoroarom. compds. related to perfluorinated polyimides and poly(amic acids)s. Average differences of Δδ between the solvents are 1.1, 1.0 and 2.1 ppm for o-, m- and p-fluorines of monosubstituted pentafluorobenzenes, resp. The significant difference for p-fluorine of NH2 is important in identifying perfluorinated diamines because they are source materials for perfluorinated polyimides. Substituent shielding parameters for meta and para substitution increase as the resp. Hammett σ consts. increase, which indicates that fluorine-19 NMR chemical shift is primarily determined by electron d.

ACCESSION NUMBER: 1995:736766 CAPLUS
DOCUMENT NUMBER: 123:227514
TITLE: Substituent shielding parameters of fluorine-19 NMR on polyfluoroaromatic compounds dissolved in dimethyl sulfoxide-d6
AUTHOR(S): Ando, Shinji; Matsuura, Tohru
CORPORATE SOURCE: NTT Interdisciplinary Research Laboratories, Tokyo, 180, Japan
SOURCE: Magnetic Resonance in Chemistry (1995), 33(8), 639-45
CODEN: MRCHEG; ISSN: 0749-1581
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

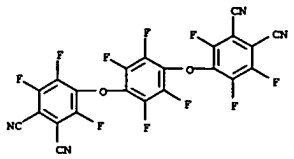
IT **143363-92-2 143376-50-5 168417-33-2**
RL: PRP (Properties)
(substituent shielding parameters in fluorine-19 NMR study of polyfluoroarom. compds.)

RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

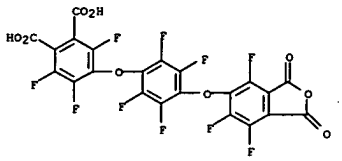


RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 168417-33-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 3,4,6-trifluoro-5-[2,3,5,6-tetrafluoro-4-[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)oxy]phenoxy]- (9CI) (CA INDEX NAME)



L60 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

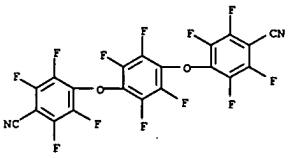
AB In the presence of fluoride ion, per- or polyfluoroarom. siloxanes C6F5OSi(CH3)3 (1), (CH3)3SiOC6F4OSi(CH3)3 (2), 1-fluoro-2,3-bis((trimethylsilyl)oxy)benzene (3), and (CH3)3SiOC(CF3)2C6F4C(CF3)2OSi(CH3)3 (4) are useful transfer reagents for the synthesis of mono- and diethers. Siloxane 1 forms RfOCF2Br (5), (RfO)3CF (6), RfOCH2ORf (7), (RfO)2CHCH(ORf)2 (8), (RfO)2SO (9), (RfO)2CO (10), C3N3(ORf)3 (11), RfOC(O)(CF2)3C(O)ORf (12), CF3SO2ORf (13), [cyclic] CF2C(ORf):C(ORf)CF2 (14), and [cyclic] CF2C(ORf):C(F)CF2 (15) (Rf = C6F5) with CF2Br2, CFBr3, CH2Br2, Br2CHCHBr2, SOF2, COF2, (CNF)3, ClC(O)(CF2)3C(O)Cl, CF3SO2F, 1,2-dichlorotetrafluorocyclobutene, and perfluorocyclobutene, resp. Compound 5 is readily converted to C6F5OCF2Si(CH3)3 (16) with hexaethylphosphorous triamide and (CH3)3SiCl in benzonitrile. With C6F5CN, CF3C6F5, C5F5N, CH3I, perfluorocyclobutene, CF3C(O)Cl and (CNF)3, 2 forms diethers p-CNC6F4OC6F4OC6F4CN-p (17), p-CF3C6F4OC6F4OC6F4CF3-p (18), NC5F4OC6F4OC5F4N (19), CH3OC6F4OCH3 (20), and C2F5C(O)OC6F4OC(O)C2F5 (21), resp. Reaction of 3 with 1,2-diiodotetrafluorobenzene in diglyme gives 1,4,9-trifluoro-2,3-diiodophenozine (22). Disiloxane 4 with C6H5CH2Br, CH3I, C6F5CH2Br, and COF2 results in C6H5CH2OC(CF3)2C6F4C(CF3)2OCH2C6H5 (23), CH3OC(CF3)2C6F4C(CF3)2OCH3 (24), C6F5CH2OC(CF3)2C6F4C(CF3)2OCH2C6F5 (25), and [cyclic] C(O)OC(CF3)2C6F4C(CF3)2OC(O)OC(CF3)2C6F4C(CF3)2O (26), resp. These materials are thermally and hydrolytically stable and are formed in high yields.

ACCESSION NUMBER: 1995:269201 CAPLUS
DOCUMENT NUMBER: 122:133262
TITLE: Per- and Polyfluoroaryl Mono- and Disiloxanes as Transfer Reagents in the Synthesis of Highly Fluorinated Mono- and Diethers
AUTHOR(S): Patel, Nimesh R.; Chen, Jianguo; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1995), 34(1), 13-17
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:133262

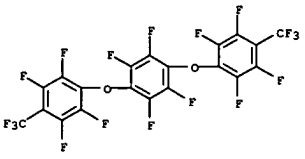
IT **15053-71-1P 15077-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15053-71-1 CAPLUS
CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 15077-30-2 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



L60 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I, useful as material for hardeners for fluorinated epoxy resins (no data), is prepared via II [R = cyano, CO2H]. Thus, a mixture of tetrafluorophthalonitrile, tetrafluorohydroquinone, and Et3N in DMF was heated at 35° for 30 to give 21% II [R = cyano], which was treated with 60% H2SO4 at 150° for 5 h to give 26% II [R = CO2H], which was refluxed with Ac2O for 2 h to 52% I.

ACCESSION NUMBER: 1994:630662 CAPLUS
DOCUMENT NUMBER: 121:230662
TITLE: preparation of a perfluorinated hexacarboxylic acid as material for hardeners for fluorinated epoxy resins
INVENTOR(S): Sasaki, Shigekuni; Matsura, Tooru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

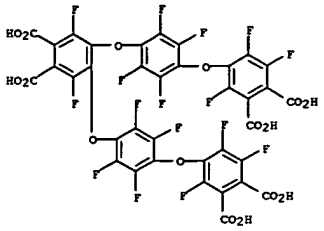
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06157501	A2	19940603	JP 1992-340986	19921130
PRIORITY APPLN. INFO.:			JP 1992-340986	19921130

OTHER SOURCE(S): CASREACT 121:230662

IT 158394-12-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion into trianhydride)

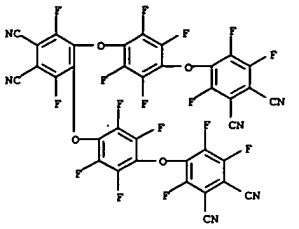
RN 158394-12-8 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,5-bis[4-(3,4-dicarboxy-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)

L60 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT 158394-11-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 158394-11-7 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,5-bis[4-(3,4-dicyano-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
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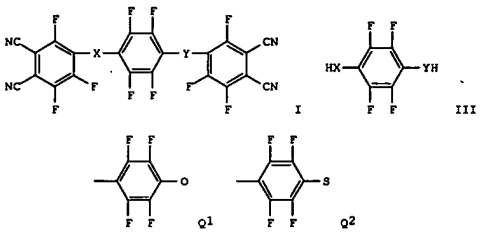


AB The title derivs. I (X = O, S; Y = O, S, Q1, Q2) are prepared by treating ≥8 mol 3,4,5,6-tetrafluorophthalonitrile (II) with 1 mol phenols or thiophenols III in the presence of basic substances in organic solvents.

A mixture of 0.22 mol II and KF in MeCN was treated dropwise with a solution of 0.011 mol III (X = Y = O) in MeCN under reflux over 1 h, then refluxed for 4 h to give 99% I.

ACCESSION NUMBER: 1994:435030 CAPLUS
DOCUMENT NUMBER: 121:35030
TITLE: Preparation of fluorine-containing phthalonitrile derivatives as intermediates for fluorine-containing polyimides
INVENTOR(S): Kaieda, Osamu; Okumura, Yasunori; Ito, Hideki
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

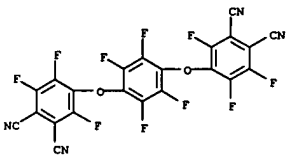
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016615	A2	19940125	JP 1992-176633	19920703
JP 08000803	B4	19960110		
PRIORITY APPLN. INFO.:			JP 1992-176633	19920703

OTHER SOURCE(S): CASREACT 121:35030; MARPAT 121:35030

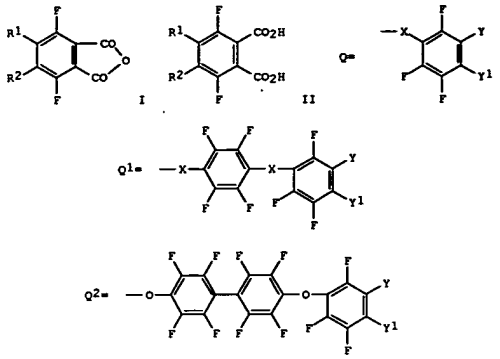
IT 143376-50-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for polyimides)

RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-

L60 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI

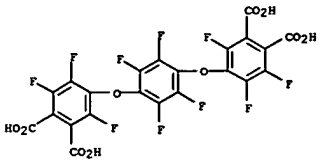


AB The title compds. (I; R1, R2 = F, C1-12 linear or branched alkoxy, C1-12 alkylthio, C1-12 alkylamino, aryloxy, arylthio, arylamino, Q - Q2; X = O, S; YY1 = CO2CO), useful as intermediates for drugs, agrochems., optical materials, printed circuit board materials, photosensitive materials, and liquid crystal materials, are prepared by heating F-containing phthalic acid
derivs. (II; R1, R2, X = same as above; Y, Y1 = CO2H) in a solvent selected from SOCl2, POCl3, or AcCl at 40-105°. The process is safe and gives perfluorophthalic anhydride derives. I of high purity in high yields. Thus, 70.5 g SOCl2 was added to 30.0 g tetrafluorophthalic acid and the resulting mixture was allowed to react at 70° for .apprx.3 h to give 97% tetrafluorophthalic anhydride.

ACCESSION NUMBER: 1994:298457 CAPLUS
DOCUMENT NUMBER: 120:298457
TITLE: Preparation of fluorine-containing phthalic anhydride derivatives
INVENTOR(S): Okumura, Yasunori; Ito, Hideki; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016656	A2	19940125	JP 1992-175450	19920702
JP 3130653	B2	20010131		
PRIORITY APPLN. INFO.:			JP 1992-175450	19920702

OTHER SOURCE(S): CASREACT 120:298457; MARPAT 120:298457
IT 143363-92-2
RL: PROC (Process)
(conversion of, into acid anhydride)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB The filter, comprising a dielec. multibilayer, is characterized in that the substrate consists of a thin-film perfluoropolyimide or a blend or a copolymer thereof.

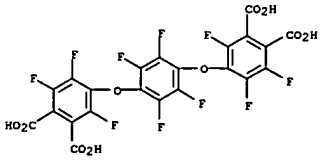
ACCESSION NUMBER: 1993:417687 CAPLUS
DOCUMENT NUMBER: 119:17687
TITLE: IR longpass dielectric interference filter
INVENTOR(S): Yamamoto, Fumio; Sasaki, Shigekuni; Matsura, Toru; Ando, Shinji; Oguchi, Taisuke
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328502	A2	19921117	JP 1991-125451	19910426
PRIORITY APPLN. INFO.:			JP 1991-125451	19910426

IT 148273-08-9
RL: USES (Uses)
(fluorinated polyimide blends containing, IR longpass filters containing)
RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

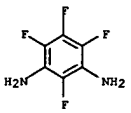
CRN 143363-92-2
CMF C22 H4 F10 O10



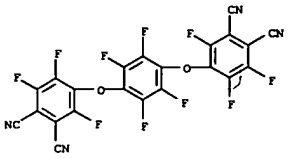
CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

L60 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L60 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB A perfluorinated polyimide that has glass temperature >300° and high optical transparency over the entire optical communication wavelengths was synthesized. The high thermal stability and optical transparency in near-IR region are due to the fully aromatic mol. structure and the absence of C-H bonds. The use of a diamine with relatively high reactivity and a new perfluorinated dianhydride, which has flexible structure, makes it possible to obtain a tough and flexible perfluorinated polyimide film. In addition, this polymer has a low dielec. constant Perfluorinated polyimides are promising for use as optical-electronic materials.
ACCESSION NUMBER: 1992:592808 CAPLUS
DOCUMENT NUMBER: 117:192808
TITLE: Perfluorinated polyimide synthesis
AUTHOR(S): Ando, Shinji; Matsuura, Tohru; Sasaki, Shigekuni
CORPORATE SOURCE: Interdiscip. Res. Lab., NTT, Musashino, 180, Japan
SOURCE: Macromolecules (1992), 25(21), 5858-60
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 143376-50-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L60 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polymers, useful as waveguidees in optoelectronic integrated circuits or optoelec. boards, are prepared from perfluoro tetracarboxylic acid derivs. and perfluoro diamines, the preparation of which is described. Polymerization of 4,4'-(tetrafluoro-p-phenylene)bis(3,5,6-trifluorophthalic anhydride) with tetrafluoro-1,3-phenylenediamine gave a polymer with no substantial absorption at optical communication wavelengths.
ACCESSION NUMBER: 1992:531752 CAPLUS
DOCUMENT NUMBER: 117:131752
TITLE: Monomers for preparation of perfluorinated polyamic acids and polyimides
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

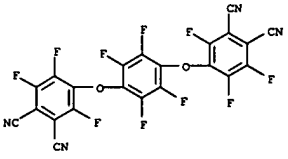
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 480266	A2	19920415	EP 1991-116553	19910927
EP 480266	A3	19930901		
EP 480266	B1	19960626		
R: DE, FR, GB				
JP 05001148	A2	19930108	JP 1991-235020	19910913
JP 2851019	B2	19990127		
JP 09031014	A2	19970204	JP 1996-207475	19910913
CA 2052368	AA	19920329	CA 1991-2052368	19910926
CA 2052368	C	19980915		
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		

PRIORITY APPLN. INFO.:

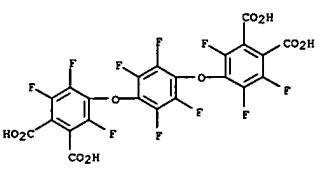
JP 1990-256843	A	19900928
JP 1991-106552	A	19910412
JP 1991-106554	A	19910412
JP 1991-106557	A	19910412
JP 1991-235020	A3	19910913
CA 1991-2052368	A3	19910926
US 1991-765672	A3	19910926
US 1993-54973	B2	19930430
US 1993-140482	A3	19931025
US 1995-451465	B1	19950526
US 1996-718208	A3	19960920

L60 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
US 1998-20573 A3 19980128

IT 143376-50-5P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT 143363-92-2P
RL: PREP (Preparation)
(preparation of)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



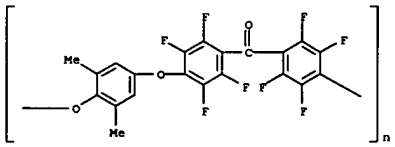
L60 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polymers, e.g., polyether-polyketones, polyarylates, polyimides, and polyesters, have good heat resistance and low attenuation and are useful as optical transmitting systems, e.g., for controlling ignition timing and fuel metering systems for internal combustion engines in automobiles. Thus, an optical fiber comprised a core of amorphous PEEK and a sheath of poly(2,2,2-trifluoroethyl methacrylate).
ACCESSION NUMBER: 1992:130739 CAPLUS
DOCUMENT NUMBER: 116:130739
TITLE: Amorphous polymers for optical transmitting systems and optical members and their use
INVENTOR(S): Takezawa, Yoshitaka; Ohara, Shuichi; Tanno, Seikich; Taketani, Noriaki; Shimura, Masato
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 454165	A2	19911030	EP 1991-106851	19910426
EP 454165	A3	19930120		
R: DE, FR, GB, IT, NL				
JP 04009805	A2	19920114	JP 1990-112511	19900427
JP 2854669	B2	19990203		
US 5093888	A	19920303	US 1991-686997	19910418

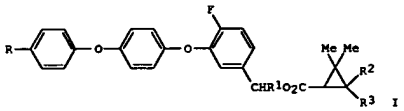
PRIORITY APPLN. INFO.:

JP 1990-112511	A	19900427

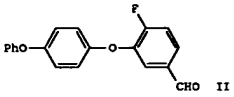
IT 138687-03-3
RL: USES (Uses)
(optical fibers, heat-resistant, for engine control systems)
RN 138687-03-3 CAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)



L60 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II

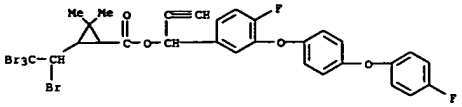
AB Benzyl cyclopropanecarboxylates I (R = H, F, Cl, Br; R1 = H, cyano, C.tplbond.CH; R2 = H, Me; R3 = CH:CCl2, CHBrCBrCl2, CHBrCBr3, Me), having insecticidal and acaricidal activities at 500 ppm with low fish toxicity, were prepared e.g. from II. Thus, 6.0 mmol NaCN and 0.88 mmol PhCH2NEt3Cl in H2O was treated dropwise with 4.0 mmol II and 4.2 mmol dl-cis,trans-2,2-dimethyl-3-(2,2-dichlorovinyl)cyclopropanecarbonyl chloride in PhMe to give 1.93 g I (R = R2 = H, R1 = cyano, R3 = CH:CCl2).

ACCESSION NUMBER: 1984:610760 CAPLUS
DOCUMENT NUMBER: 101:210760
TITLE: Insecticidal cyclopropanecarboxylate esters
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

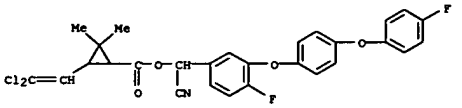
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59134749	A2	19840802	JP 1983-8536	19830120
PRIORITY APPLN. INFO.:			JP 1983-8536	19830120

IT 90928-31-7P 93207-48-8P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and insecticidal activity of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

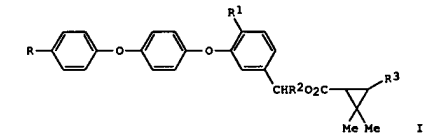
L60 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



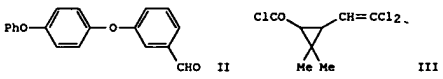
RN 93207-48-8 CAPLUS
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]methyl ester (9CI) (CA INDEX NAME)



L60 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I



II III

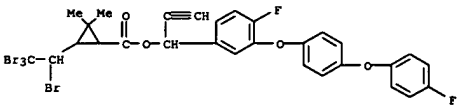
AB Twelve title esters (I; R = H, halo; R1 = H, F; R2 = H, cyano, HC.tplbond.C, R3 = halovinyl, haloethyl), effective insecticides and miticides at 500 ppm, were prepared Thus, 5.0 mmol II and 5.25 mmol (±)-III in MePh were added to a solution of 7.5 mmol NaCN and 1.1 mmol PhCH2N+Et3 Cl- in H2O at room temperature to give 2.07 g (±)-I (R = R1 = H; R2 = cyano, R3 = Cl2C:CH).

ACCESSION NUMBER: 1984:438168 CAPLUS
DOCUMENT NUMBER: 101:38168
TITLE: Cyclopropanecarboxylate esters as insecticides and miticides with low toxicity
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

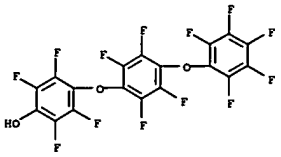
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59042342	A2	19840308	JP 1982-153029	19820901
PRIORITY APPLN. INFO.:			JP 1982-153029	19820901

IT 90928-31-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

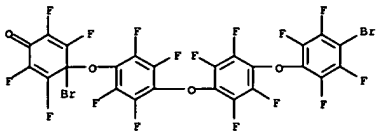
L60 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



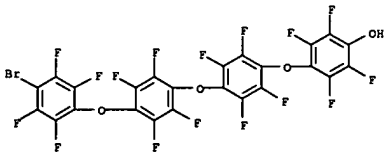
L60 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl
ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).
ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts
Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **53359-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53359-93-6 CAPLUS
CN Phenol, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



L60 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The controlled oxidation of perhalo p-bromophenols (I), (II), and (III) gives
the corresponding perhalo polyethers (IV); the perchloro 4-aryloxycyclohexa-2,5-dienone (V) is obtained from pentachlorophenol (VI). Similarly, VII gives VIII and 4-chloro-2,3,5,6-tetrabromophenol gives IX.
ACCESSION NUMBER: 1971:111698 CAPLUS
DOCUMENT NUMBER: 74:111698
TITLE: Oxidation of pentahalo benzenic phenols
AUTHOR(S): Denivelle, Leon; Lampel, Alfred
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conserv. Natl. Aris Metiers, Paris, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,
Serie C: Sciences Chimiques (1971), 272(7), 653-6
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **31404-37-2P 31404-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31404-37-2 CAPLUS
CN 2,5-Cyclohexadien-1-one, 4-bromo-4-[4-[4-(4-bromo-2,3,5,6-tetrafluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

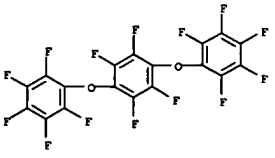


RN 31404-38-3 CAPLUS
CN Phenol, 4-[4-[4-(4-bromo-2,3,5,6-tetrafluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluoro- (8CI)
(CA INDEX NAME)



L60 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L60 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN
AB A number of perfluorinated and partially fluorinated phenyl and polyphenyl
ethers were synthesized, characterized for thermal stability, fire resistance, and viscosity, and compared with their H analogs to assess the
potential use of this class of compds. as functional fluids. Without exception, polyfluorination and perfluorination lower thermal stability; the decrease in stability depends on the position and number of fluorine substituents. The autoignition temperature and fire resistance are not improved
over the H analog, and viscosity is degraded. These data coupled with the
comparatively high melting points do not suggest a bright future for this class of compds. as useful functional fluids. 6 references.
ACCESSION NUMBER: 1968:77890 CAPLUS
DOCUMENT NUMBER: 68:77890
TITLE: Synthesis, thermal stability, flammability, and viscosity of some partially fluorinated and perfluorinated aromatic and polyaromatic ethers
AUTHOR(S): Richardson, George Albert; Blake, Edward S.
CORPORATE SOURCE: Monsanto Res. Corp., Dayton, OH, USA
SOURCE: Industrial & Engineering Chemistry Product Research and Development (1968), 7(1), 17-21
CODEN: IEPRA6; ISSN: 0196-4321
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **6804-37-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 6804-37-1 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)



L60 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

GI For diagram(s), see printed CA Issue.

AB 2,3,5,6-Tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]hydroquinones (I) and 2,4,5,6-tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]resorcinols (II) are prepared by the treatment of the compds. of the general formulas C6F5X, where X is CN, CF3, CONH2, and CO2H, with 2,3,5,6-tetrafluorohydroquinone di-Na salt and 2,4,5,6-tetrafluororesorcinol di-Li salt (III), resp. 19F-N.M.R. and ir data for the prepared I and II are given. III is treated with decafluorocyclohexene to give a mixture of 2,4,5,6-tetrafluoro-O,O'-bis(perfluoro-1-cyclohexen-1-yl)resorcinol and 2,4,5,6-tetrafluoro-O-(perfluoro-1-cyclohexen-1-yl)-O'-(perfluoro-2-cyclohexen-1-yl)resorcinol.

ACCESSION NUMBER: 1968:68571 CAPLUS

DOCUMENT NUMBER: 68:68571

TITLE: Reactions of perfluorophenolates with substituted pentafluorobenzenes and perfluorocyclohexene

AUTHOR(S): De Pasquale, Ralph J.; Tamborski, Christ

CORPORATE SOURCE: Wright-Patterson Air Force Base, Dayton, OH, USA

SOURCE: Journal of Organic Chemistry (1968), 33(2), 830-3
CODEN: JOCEAH; ISSN: 0022-3263

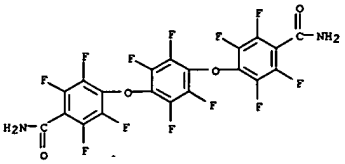
DOCUMENT TYPE: Journal

LANGUAGE: English

IT **14796-02-2P 14796-03-3P 15053-71-1P 15077-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 14796-02-2 CAPLUS

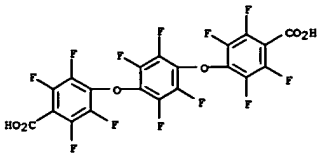
CN Benzamide, 4,4'-[(2,3,5,6-tetrafluoro-p-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)



RN 14796-03-3 CAPLUS

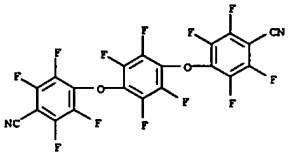
CN Benzoic acid, 4,4'-[(2,3,5,6-tetrafluoro-p-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

L60 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



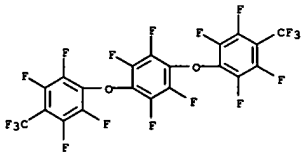
RN 15053-71-1 CAPLUS

CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 15077-30-2 CAPLUS

CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



L60 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN

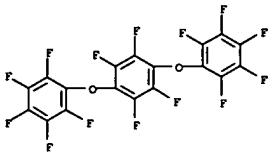
AB A mixture of 26.5 g. C6F6, 26.5 g. 85% KOH, and 75 ml. H2O was heated in a sealed bomb at 175° for 5 hrs. with agitation to give 33.1 g. C6F5OH, b. 144-5°. A mixture of 67 g. C6F5H, 21.6 g. KOH, 150 ml. pyridine, and 2 ml. H2O was refluxed 1 hr., treated with 21.6 KOH, and refluxed 24 hrs. to give 21 g. 2,3,5,6-tetrafluorophenol, b20 47°. Similarly refluxing 36 g. C6F5Me and 28 g. KOH in 300 ml. tert-BuOH gave 12 g. 2,3,5,6-tetrafluoro-p-cresol, m. 52°. Reaction of 20 g. C6F5I with 2 g. KOH and 1 ml. H2O in 100 ml. pyridine gave only one product, 2,3,5,6-tetrafluoro-4-iodophenol, m. 79-81°; benzoate m. 59-60.2°. Reaction of 66 g. C6F5Br with 28.5 g. KOH and 1 ml. H2O in 150 ml. pyridine, however, gave a mixture of products: 3.5 g. 2-bromo-3,4,5,6-tetrafluorophenol, m. 41-3° (3,5-dinitrobenzoate, m. 104-5°); and 11.5 g. 4-bromo-2,3,5,6-tetrafluorophenol (3,5-dinitrobenzoate m. 131-3°). Similarly, 100 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene on treatment with 5.6 g. KOH and 1 ml. H2O in 100 ml. pyridine gave 2.5 g. 2-chlorotrifluoro-α,α,α-trifluoro-o-cresol, b15 92-3°, n24D 1.4510; and 15 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-cresol, b15 102-3°, n24D 1.4510. The reactions of polyfluorobenzenes were then studied with alkoxides. A solution of 123.5 g. C6F5Br in 70 ml. pyridine was treated with a solution of 11.5 g. Na in 150 ml. MeOH during 1.5 hrs. and the mixture refluxed 15 hrs. and acidified with 1 l. 10% HCl to give 66 g. 4-bromo-2,3,5,6-tetrafluoroanisole, b5 79-81°, n25D 1.4812. Similarly, a mixture of 10 g. C6F5I in 50 ml. pyridine and 0.8 g. Na in 15 ml. MeOH on refluxing for 3 hrs. gave 1.5 g. unchanged C6F5I and 5.5 g. 2,3,5,6-tetrafluoro-4-iodoanisole (I), b20 113-15°, n22D 1.5229. Refluxing 1 g. I with 1 g. activated Cu powder for 12 min. gave 0.2 g. octafluoro-4,4'-dimethoxybiphenyl, m. 90-1.2°. To a cold solution of 9 g. Na in 250 ml. PhCH2OH was added 75 g. C6F6 and the mixture refluxed 24 hrs. to give 30 g. benzyl pentafluorophenyl ether (II), m. 44°. A better yield was obtained when a solution of 4.6 g. Na and 22 g. PhCH2OH in 250 ml. tert-BuOH was refluxed with 40 g. C6F6 for 40 hrs. to give 33 g. II. A solution of 8 g. C6F6 in 30 ml. HCONMe2 was treated with 5.28 g. PhOK and the mixture refluxed 0.5 hr. to give 1 g. 2,3,5,6-tetrafluoro-1,4-diphenoxybenzene, m. 147-9°, and 3.5 g. 2,3,4,5,6-pentafluorophenyl phenyl ether, (III), m. 29°. III was also obtained by heating a mixture of 11 g. C6F5OK, 15 g. PhBr, and 1 g. Cu at 210° in a sealed bomb. A solution of 6 g. C6F5OK and 12.8 g. C6F6 in 30 ml. HCONMe2 was refluxed 14 hrs. to give 1.5 g. bis(perfluorophenyl) ether, m. 67-9°, and a second product, m. 145-8°, probably p-bis(pentafluorophenoxy)2,3,5,6-tetrafluorobenzene. Similarly, a solution of 0.6 g. Na in 50 ml. EtOH refluxed with 5.3 g. C6F5NMe2 2 hrs. gave 5.1 g. 4-ethoxy-2,3,5,6-tetrafluoro-N,N-dimethylaniline, b. 34°. Reactions with amines were next investigated. A mixture of 280 g. C6F6 and 400 ml. 28% aqueous NH3 was rocked in a sealed bomb for 2 hrs. at 235° to give 236 g. C6F5NH2, m. 34°, and 28 g. tetrafluorophenylenediamine (sublimed 75°/1 mm.) shown by its nuclear magnetic resonance spectrum to be essentially the meta isomer mixed with a small amount of the para isomer. Similarly, heating a mixture of

L60 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

56 g. C6F6 and 110 ml. 30% aq. MeNH2 at 220° for 3 hrs. gave 59% C6F5NHMe, b. 170-2°, and 25% 2,3,5,6-tetrafluoro-N,N'-diphenylphenylenediamine, m. 94°. The reaction product obtained by heating 50 g. C6F6 and 110 ml. 25% aq. Me2NH at 235° for 1 hr. was distd. at 1 mm. pressure and five fractions were collected. The first fraction (65%), b1 88°, was C6F5NMe2. Fraction 2, b1 88-126°, was shown by vapor phase chromatography to be C6F5NMe2 with 3 other compds. Fraction 3, b1 126-134°, consisted of 3 isomers of bis(dimethylamino)tetrafluorobenzene with the meta-isomer predominating. Fraction 4, b1 134-40°, contained equal amts. of the meta and para isomers. Fraction 5, b1 140-8°, was pure para isomer. The meta and para isomers could be sepd. by vapor phase chromatography. Similarly, heating a mixt. of 30 g. C6F5Br and 70 ml. 28% NH4OH at 200° for 2 hrs. gave 22 g. p-bromotetrafluoroaniline, m. 61°. Heating 16 g. C6F5I and 30 ml. 8% NH4OH at 165° for 2 hrs. gave 7.6 g. tetrafluoro-p-iodoaniline, m. 77°. Benzyl pentafluorophenyl ether (20 g.) was heated with large excess of 28% NH4OH to give 3 g. p-(benzyloxy)tetrafluoroaniline, m. 97°. Similarly, heating 50 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene and 120 ml. 28% NH4OH at 21° for 2 hrs. gave 22 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-toluidine, which decompd. readily at room temp. in the presence of air. To 100 ml. anhyd. NH3 at -70° were added 0.1 g. Fe(NO3)3 and 2.99 g. Na and, after disappearance of the blue color, 25 g. C6F5OMe during 45 min. After 5 hrs. at -70° the reaction mixt. was worked up to give 7 g. unreacted C6F5OMe, 2.8 g. tetrafluoro-p-anisidine, m. 75-6.5°, 1.2 g. 4,4'-dimethoxyoctafluorodiphenylamine, m. 78-9°, and 2.2 g. 4,4',4''-trimethoxydodecafluorotriphenylamine, b. 157-9°, n23D 1.5005. Diazotization of C6F5NH2 required concd. acids since the salts of the amine hydrolyzed very readily in dil. solns. In 48% HBr, diazotization of C6F5NH2 gave C6F5N:NNHC6F5, probably owing to slow diazotization. The reaction was temp.-dependent, the diazoaminobenzene being formed much faster at 10° than at -10°. The product decompd. in warm HBr to give 5.4% C6F5Br and a mixt. of o- and p-dibromotetrafluorobenzenes. In concd. H2SO4 the reaction was very slow even at 25°. Addition of HOAc hastened it. Deamination with hypophosphorus acid gave a mixt. probably of C6F5H and C6H2F4. Better diazotization could be carried out in liquid HF and the diazo product underwent successful Sandmeyer reaction. A soln. of 20 g. C6F5NH2 in 75 ml. anhyd. HF at -20° was treated with 7.27 g. NaNO2 during 30 min. After stirring for 1 hr. at -10° the mixt. was treated with 17.6 g. KI during 30 min. and allowed to warm to 25° in 1 hr. to give 16.5 g. C6F5I, b35 77-9°. Use of 12 g. KBr and 15 g. Cu2Br2 instead of KI gave 35% C6F5Br. The reaction of diazotized amine with C6F5OLi gave C6F5N:N(O)C6F5, which decompd. on removal of solvent. The Sandmeyer nitrile synthesis was not successful. A soln. of 10 g. C6F5NH2 in 100 ml. HOAc was oxidized with 25 ml. 30% H2O2 at 25° for 24 hrs. to give decafluoroazoxybenzene (IV), m. 53-4°. A mixt. of 5 g. IV, 15 g. Zn powder, 5 g. NH4Cl, 10 ml. H2O, and 75 ml. 95% EtOH refluxed 30 min. gave 2 g. decafluoroazobenzene, m. 57-9°. C6F6 reacted readily with organolithium compds. A soln. of MeLi, prepd. from 4.5 g. Li and 43 g. MeI in 50 ml. ether, was cooled to -10° to -20°, added dropwise to a soln. of 60 g. C6F6 in 250 ml. pentane, and stirred for 17 hrs. at room temp. to give 34 g. C6F5Me, b. 115°. Similarly, reaction of BuLi, prepd. from 1.86 g. Li and 18.3 g. BuBr in 30 ml. ether,

L60 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
with 25.3 g. C6F6 in 25 ml. ether gave 10.5 g. unreacted C6F6, 7 g. C6F5Bu, b25 86-7°, n20D 1.4229, and 2.5 g. of a compd., bl 230°, n20D 1.4683, probably impure tributyldifluorobenzene. Similarly, 32.7 g. C6F6 in 150 ml. ether with 0.18 mole PhLi in 250 ml. ether gave 8.5 g. 2,3,5,6-tetrafluoro-p-terphenyl, m. 220°, and 33 g. C6F5Ph, m. 69°. A similar reaction of 18.6 g. C6F6 and isopropenyllithium prepd. from 12.1 g. 2-bromopropene gave 5 g. 2,3,4,5,6-pentafluoro-α-methylstyrene, b52 72-4°. With vinyllithium, prepd. from 0.1 mole PhLi and 0.025 mole tetravinyltin, 18.6
g. C6F6 gave 4 g. unreacted C6F6 and 20% C6F5CH:CH2, b25 34°. LiAlH4 redn. of 21 g. C6F6 in ether gave 17 g. of a mixt. of C6F6 and C6F5H which was sepd. by vapor phase chromatography to give 7.5 g. C6HF5. All the products in all above reactions were studied by infrared and nuclear magnetic resonance spectroscopy. The mechanism of reaction and the directional effects were discussed.

ACCESSION NUMBER: 1964:52434 CAPLUS
DOCUMENT NUMBER: 60:52434
ORIGINAL REFERENCE NO.: 60:9170b-h,9171a-e
TITLE: Reactions of polyfluorobenzenes with nucleophilic reagents
AUTHOR(S): Wall, Leo A.; Pummer, Walter J.; Fearn, James E.; Antonucci, Joseph M.
SOURCE: J. Res. Natl. Bur. Std. (1963), 67A(5), 481-97
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 6804-37-1, Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)-(?)
(preparation of)
RN 6804-37-1 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)



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DICTIONARY FILE UPDATES:  10 JAN 2005  HIGHEST RN 811411-12-8

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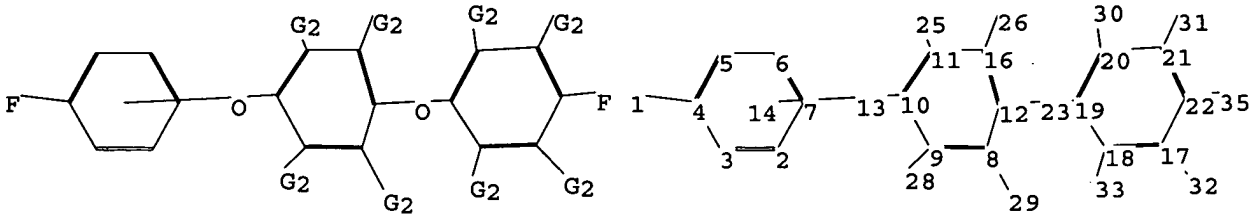


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ring nodes :
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22-35
ring bonds :
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exact/norm bonds :
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exact bonds :
1-4  22-35
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normalized bonds :
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18-19 19-20 20-21 21-22

G1:N,X

G2:X,Ak,H

Match level :
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11:Atom 12:Atom 13:CLASS 14:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom
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L61 STRUCTURE UPLOADED

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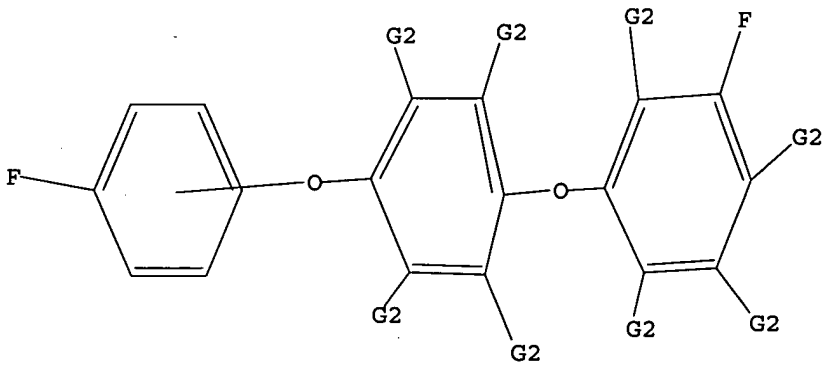

G1 N,X
G2 X,Ak,H

Structure attributes must be viewed using STN Express query preparation.

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FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 817 TO 1783
PROJECTED ANSWERS: 3 TO 163

L62 3 SEA SSS SAM L61

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FULL SCREEN SEARCH COMPLETED -   1235 TO ITERATE

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SEARCH TIME: 00.00.01

L63          27 SEA SSS FUL L61

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FILE COVERS 1907 - 12 Jan 2005  VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005  (20050111/ED)

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L64          30 L63

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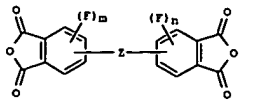
L64 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

AB This invention pertains to a method for producing bis(fluorine-containing phthalic anhydride) derivs. I [wherein m = 1-3; n = 1-3; Z = a single bond or a spacer], which comprises reacting a fluorine-containing dinitrile with a fluorine-containing hydroquinone, followed by hydrolysis and dehydration reaction. For example, 3,4,5,6-tetrafluorophthalonitrile was reacted with tetrafluorohydroquinone in Me iso-Bu ketone in the presence of KF to give the bisphthalonitrile (97%). The bisphthalonitrile was hydrolyzed in propionic acid in the presence of H2SO4 to afford the bis(phthalic acid) (75%). The bis(phthalic acid) was treated with acetic anhydride to provide the bis(phthalic anhydride) (98%).

ACCESSION NUMBER: 2004:1127358 CAPLUS
TITLE: Process for preparation of bis(fluorine-containing phthalic anhydride)
INVENTOR(S): Masuda, Go; Okumura, Yasunori; Nishimae, Shinji; Naraya, Toshihiro
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

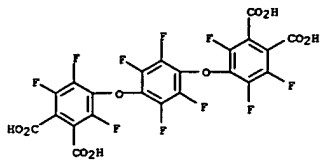
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004111026	A1	20041223	WO 2004-JP8829	20040617

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

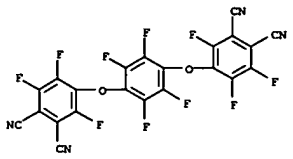
PRIORITY APPLN. INFO.: JP 2003-172046 A 20030617
JP 2003-201123 A 20030724

IT **143363-92-2P 143376-50-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic

L64 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of bis(fluorine-contg. phthalic anhydride))
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB The compns. containing repeating units of AD(R) [A = F-substituted (O- or S-containing) hydrocarbylene; D = F-substituted (O- or S-containing) trivalent hydrocarbon group; R = Si(OR1)(OR2)R3; R1, R2 = hydrocarbyl (each b.p. of R1OH and R2OH under normal pressure ≤250°); R3 = (F-substituted) double bond-terminated hydrocarbyl] show n and dielec. constant of their cured products 1.350-1.600 and 2.00-4.00, resp. The compns. give cured products with adjustable n and dielec. constant, and improved mech. properties and solvent resistance.

ACCESSION NUMBER: 2004:411677 CAPLUS
DOCUMENT NUMBER: 140:431126
TITLE: Manufacture of silicon-containing curable polymer compositions for planar optical waveguides and wiring boards
INVENTOR(S): Florence, Corey Nawarage
PATENT ASSIGNEE(S): Fujitsu Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

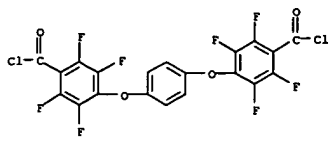
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143280	A2	20040520	JP 2002-309280	20021024

PRIORITY APPLN. INFO.: JP 2002-309280 20021024

IT **691906-05-5DP**, reaction products with allyltrichlorosilane and ethanol
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(crosslinked; manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)
RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

CM 1

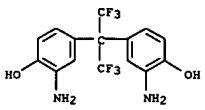
CRN 691906-04-4
CMF C20 H4 Cl2 F8 O4



L64 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

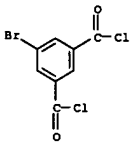
CM 2

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

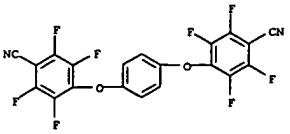


CM 3

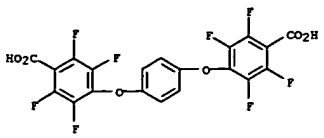
CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



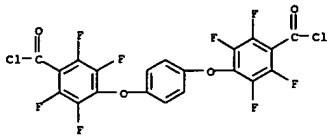
IT **691906-02-2P 691906-03-3P 691906-04-4P 691906-05-5P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of silicon-containing curable polymer compns. for planar optical waveguides and wiring boards)
RN 691906-02-2 CAPLUS
CN Benzonitrile, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 691906-03-3 CAPLUS
CN Benzoic acid, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



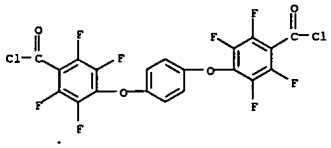
RN 691906-04-4 CAPLUS
CN Benzoyl chloride, 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 691906-05-5 CAPLUS
CN 1,3-Benzenedicarbonyl dichloride, 5-bromo-, polymer with 4,4'-[1,4-phenylenebis(oxy)]bis[2,3,5,6-tetrafluorobenzoyl chloride] and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-aminophenol] (9CI) (CA INDEX NAME)

CM 1

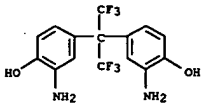
CRN 691906-04-4
CMF C20 H4 Cl2 F8 O4



CM 2

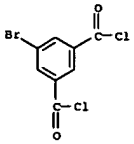
L64 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

CRN 83558-87-6
CMF C15 H12 F6 N2 O2

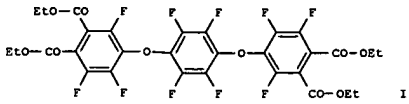


CM 3

CRN 57863-69-1
CMF C8 H3 Br Cl2 O2



L64 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI



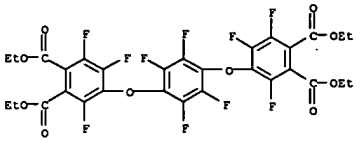
AB The title phthalic acid derivs. (Markush structure given) are prepared by reaction of tetrafluorophthalic acid derivs. with MAM [A = divalent organic moiety; M = H, et.]. Thus, I was prepared I is a raw material for the manufacture of fluorinated polyimides. The title phthalic acid derivs. are useful as intermediates for optical materials, liquid crystals, etc.

ACCESSION NUMBER: 2003:823334 CAPLUS
DOCUMENT NUMBER: 139:330642
TITLE: Phthalic acid derivatives as intermediates for halogenated polyimides, liquid crystals, etc., and process for manufacturing them
INVENTOR(S): Okumura, Yasunori; Kuwahara, Masayoshi; Masuda, Takeshi
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

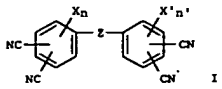
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003300934	A2	20031021	JP 2002-108095	20020410
PRIORITY APPLN. INFO.:			JP 2002-108095	20020410

OTHER SOURCE(S): MARPAT 139:330642
IT 615263-86-0P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(phthalic acid derivs. as intermediates for halogenated polyimides, optical materials, liquid crystals, and process for manufacturing them)
RN 615263-86-0 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, tetraethyl ester (9CI) (CA INDEX NAME)

L64 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L64 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI



I

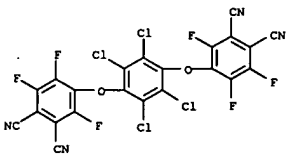
AB The compds. are prepared by hydrolysis of aromatic tetranitriles I (X, X' =
halo; n, n' = 1-3; Z = single bond, O, S, O-p-C6H4-mYmO, etc; Y = halo; m = 1-4) in the presence of acids in organic solvents. 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzene was treated with H2SO4 in propionic acid under reflux for 6 h to give 95.7% 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene.

ACCESSION NUMBER: 2002:886125 CAPLUS
DOCUMENT NUMBER: 137:384650
TITLE: Preparation of halogen-containing aromatic carboxylic acids
INVENTOR(S): Kuwahara, Masayoshi; Yokoo, Junko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

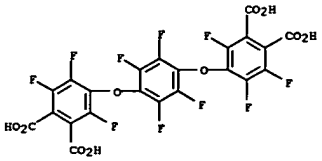
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002332253	A2	20021122	JP 2001-142027	20010511
JP 3490407	B2	20040126		
PRIORITY APPLN. INFO.:			JP 2001-142027	20010511

OTHER SOURCE(S): MARPAT 137:384650
IT **143363-92-2P 474805-31-7P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of halogen-containing aromatic carboxylic acids)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

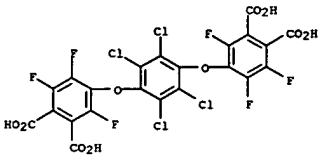
L64 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



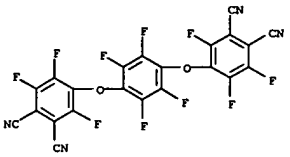
L64 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143376-50-5**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrafluorobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **474805-29-3P**, 1,4-Bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenzene
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of halogen-containing aromatic carboxylic acids)

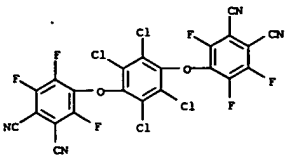
L64 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB The present invention relates to halogen-containing aromatic compds. and methods
thereof. The present invention relates a halogen-containing aromatic acid
dianhydride, halogen-containing aromatic tetranitrile compound, halogen-containing
m-phenylenediamine compound and fluorine compound, and a method thereof. Tetrafluorophthalonitrile was reacted with tetrachlorohydroquinone in the presence of potassium fluoride and acetonitrile to give 1,4-bis(3,4-dicyanotrifluorophenoxy)tetrachlorobenzene.

ACCESSION NUMBER: 2002:866679 CAPLUS
DOCUMENT NUMBER: 137:354701
TITLE: Halogen-containing aromatic compound
INVENTOR(S): Kuwabara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan; Nippon Catalytic Chem. Ind.
SOURCE: Eur. Pat. Appl., 38 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

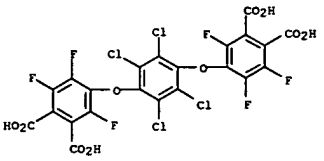
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1256564	A1	20021113	EP 2002-253088	20020501
EP 1256564	B1	20040728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2002332268	A2	20021122	JP 2001-142028	20010511
JP 2002332281	A2	20021122	JP 2001-142029	20010511
JP 2002332264	A2	20021122	JP 2001-142031	20010511
JP 3563040	B2	20040908		
JP 2002332254	A2	20021122	JP 2001-142032	20010511
US 2003018204	A1	20030123	US 2002-133158	20020426
EP 1462436	A1	20040929	EP 2004-10371	20020501
R: DE, FR, GB				
CN 1385427	A	20021218	CN 2002-119176	20020513
PRIORITY APPLN. INFO.:			JP 2001-142028	A 20010511
			JP 2001-142029	A 20010511
			JP 2001-142031	A 20010511
			JP 2001-142032	A 20010511
			EP 2002-253088	A3 20020501

OTHER SOURCE(S): MARPAT 137:354701
IT **474805-29-3P 474805-31-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(halogen-containing aromatic compound)
RN 474805-29-3 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 5 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 474805-31-7 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrachloro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L64 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AB The repeating units of polyimides for coating materials contain tetravalent aromatic organic groups and aromatic groups having no CH bonds. Thus, a film of 1,4-bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer had dielec. constant 2.6 at 1 MHz, compared with 3.5 for a com. polyimide.

ACCESSION NUMBER: 2002:139034 CAPLUS
DOCUMENT NUMBER: 136:185465
TITLE: Insulating coating materials for coil wire
INVENTOR(S): Tajiri, Kozo; Kuwahara, Masayoshi; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

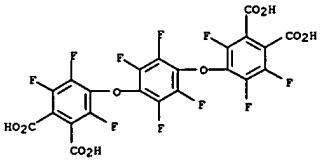
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002056720	A2	20020222	JP 2000-243309	20000810
PRIORITY APPLN. INFO.:			JP 2000-243309	20000810

IT 148273-08-9, 1,4-Bis(3,4-dicarboxytrifluorophenoxy)tetrafluorobenzene-2,4,5,6-tetrafluoro-1,3-phenylenediamine copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fluoro polyimide insulating coating materials for coil wire)

RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

CM 1

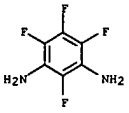
CRN 143363-92-2
CMF C22 H4 F10 O10



CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2

L64 ANSWER 6 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L64 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AB The compds. QCO-p-C6H4O-p-C6H4R (Q = 2,3,4,5,6-pentafluorophenyl; R = OH, COQ) are manufactured Thus, 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone (prepared from 2,3,4,5,6-pentafluoro-4'-methoxybenzophenone) was polymerized in dimethylacetamide at 160° to give a polymer showing good solubility in dimethylacetamide and m-cresol, 10% weight loss (in air) temperature 421°.

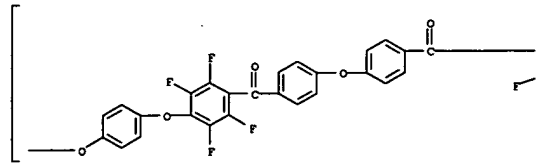
ACCESSION NUMBER: 2001:176773 CAPLUS
DOCUMENT NUMBER: 134:208664
TITLE: (2,3,4,5,6-pentafluorobenzoyl)diphenyl ethers and fluorine-containing aryl ether ketone polymers having high solubility and heat stability
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Casiday, Rachel E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001064226	A2	20010313	JP 1999-183950	19990629
PRIORITY APPLN. INFO.:			US 1998-106270 A	19980629
			JP 1999-180091 A	19990625

IT 213693-15-3P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
((pentafluorobenzoyl)phenyl ether as monomers for F-containing aryl ether ketone polymers having high solubility and heat stability)

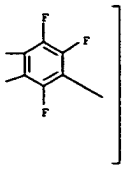
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L64 ANSWER 7 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L64 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

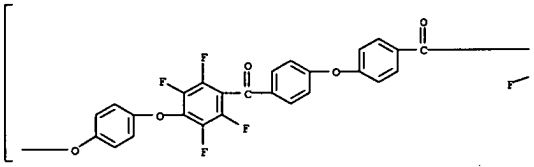
AB The compns., useful for elec. insulating materials, contain (p-C6F4COC6H4-qXqOR1m)n [R1 = C6H4-rX'r(CO-p-C6F4OR2)pO; R2 = divalent aryl; X, X' = halo, lower alkyl, alkoxy; q, r = 0-4; m,p = 0, 1]. Thus, 2,2-bis(4-hydroxyphenyl)-1,1,1,3,3,3-hexafluoropropane was polymerized with 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl)diphenyl ether to give a polymer showing dielec. constant 3.06 at 25°, 10% weight loss temperature 524° under N, and Tg 174°.

ACCESSION NUMBER: 2001:124290 CAPLUS
DOCUMENT NUMBER: 134:179345
TITLE: Low dielectric fluorinated aromatic polyether ketone compositions with good heat resistance
INVENTOR(S): Kimura, Kunio; Yamashita, Yoshihiko; Okumura, Yasunori
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001049110	A2	20010220	JP 1999-226981	19990810
JP 3539897	B2	20040707		
PRIORITY APPLN. INFO.:			JP 1999-226981	19990810

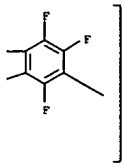
IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low dielec. fluorinated aromatic polyether ketone compns. with good heat resistance)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L64 ANSWER 8 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

PAGE 1-B



L64 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

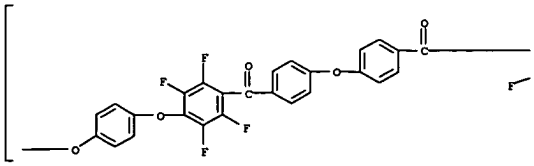
AB Ketonic di-Ph ethers of p-R1COC6H4OC6H4R2-p type compds. (R1 = 2,3,4,5,6-pentafluorobenzoyl; R2 = OH, pentafluorobenzoyl group) and polyether-polyketone polymers containing tetrafluorophenylene and phenylene groups are provided which have good mech. strength, toughness, elec. property, thermal oxidative stability and solubility Thus, heating 0.5 g 2,3,4,5,6-pentafluoro-4'-hydroxybenzophenone with 0.36 ground K carbonate, 2 mL N-methyl-2-pyrrolidone and 1 mL PhMe at 160° while stirring for 3 h gave a polymer at 85% yield and having viscosity 0.5 g/dL in AcNMe2.

ACCESSION NUMBER: 2001:25791 CAPLUS
DOCUMENT NUMBER: 134:86663
TITLE: (2,3,4,5,6-Pentafluorobenzoyl)diphenyl ether compound, and fluorine-containing aryl ether ketone polymer
INVENTOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu
PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. Ser. No. 106,270, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6172181 B1		20010109	US 1999-354976	19990716
PRIORITY APPLN. INFO.:			US 1998-106270	19980629
OTHER SOURCE(S):	MARPAT 134:86663			

IT **213693-15-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(manufacture of (2,3,4,5,6-pentafluorobenzoyl)diphenyl ether compound and fluorine-containing aryl ether ketone polymer)
RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L64 ANSWER 9 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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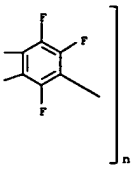


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L64 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

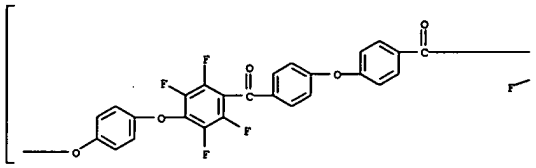
AB Fluoropolymer-polyether-polyketones were obtained by homopolycondensation of 4-hydroxy-4'-(pentafluorobenzoyl)diphenyl ether and by copolycondensation of 4,4'-bis(pentafluorobenzoyl)diphenyl ether with benzenediols or bisphenols. The polymers have very good heat resistance, with 10% weight loss temps. ≥500°.

ACCESSION NUMBER: 1998:532324 CAPLUS
DOCUMENT NUMBER: 129:260978
TITLE: New polymers derived from 2,3,4,5,6-pentafluorobenzoic acid
AUTHOR(S): Kimura, Kunio; Yamashita, Yuhiko; Cassidy, Patrick E.; Fitch, John W., III; Reddy, V. Sreenivasulu; Sakaguchi, Yoshimitu
CORPORATE SOURCE: Faculty of Environmental Science and Technology, Okayama University, Okayama, 700-8530, Japan
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 790-791
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

IT **213693-15-3P**, 4,4'-Bis(pentafluorobenzoyl)diphenyl ether-hydroquinone copolymer, SRU
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of thermally stable fluoropolymer-polyether-polyketones)

RN 213693-15-3 CAPLUS
CN Poly[oxy-1,4-phenyleneoxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



L64 ANSWER 10 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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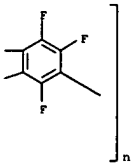


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L64 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

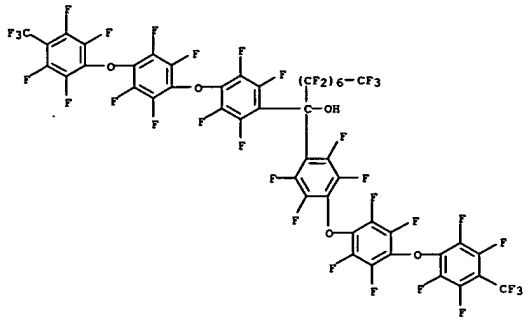
AB Selected perfluorinated tertiary alcs. were reacted with p-toluenesulfonyl chloride to form their p-toluenesulfonyl esters C6F5(CF3)2COSO2C6H4CH3 (I), CF3C6F4OC6F4(C3F7)(C8F17)COSO2C6H4CH3 and (CF3C6F4OC6F4)2(C7F15)COSO2C6H4CH3. The absolute configuration of I is established by X-ray diffraction.

ACCESSION NUMBER: 1998:210377 CAPLUS
DOCUMENT NUMBER: 128:321424
TITLE: p-Toluenesulfonyl esters of perfluorinated tertiary alcohols: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3
AUTHOR(S): Krumm, Burkhard; Vij, Ashwani; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Dep. of Chem., Univ. of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Journal of Fluorine Chemistry (1998), 89(1), 19-22
CODEN: JFLCAR; ISSN: 0022-1139
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 128:321424

IT **207233-54-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of C6F5(CF3)2COSO2C6H4CH3)

RN 207233-54-3 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)

L64 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **207233-53-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(p-Toluenesulfonyl esters of perfluorinated tertiary alcs.: crystal structure determination of the absolute configuration of
C6F5(CF3)2COSO2C6H4CH3)
RN 207233-53-2 CAPLUS
CN Benzenemethanol, 2,3,5,6-tetrafluoro-α-(pentadecafluoroheptyl)-α-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]phenyl]-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]-, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)

L64 ANSWER 11 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

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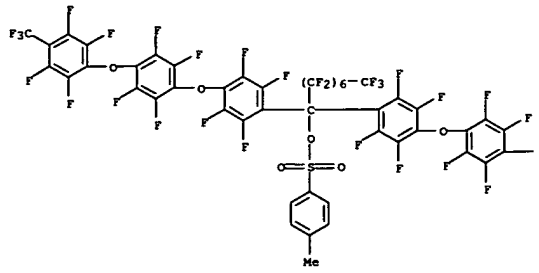
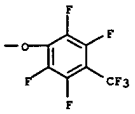


PAGE 1-B



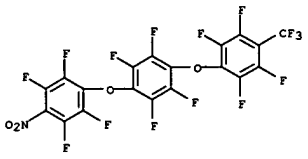
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

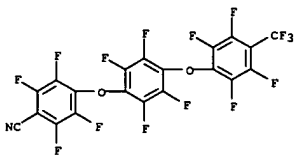
AB Reactions of 4'-CF3C6F4OC6F4Li, generated in situ, with elements of group 16 (S, Se, Te) lead to CF3C6F4OC6F4SH (2), (CF3C6F4OC6F4Se)2 (3), and (CF3C6F4OC6F3Te)2 (4)/(CF3C6F4OC6F3)2Te (4a). The phenol derivative CF3C6F4OC6F4OH (1) is obtained by reaction of CF3C6F4OC6F4Li with B(OMe)3/H2O2. The reaction of CF3C6F4OC6F4Li with trimethylsilyl chloride or trimethyltin chloride gives CF3C6F4OC6F4XMe3 (X = Si (5), Sn (6)). Oxidation of 2 in the presence of bromine results in the formation of (CF3C6F4OC6F4S)2 (7) and CF3C6F4OC6F4SO2Br (8). Mixed perfluoroaryloxo/thio ethers CF3C6F4OC6F4SC6F4R (R = NO2 (9), CN (10), CF3 (11)) and CF3C6F4OC6F4SC5F4N (12) are obtained upon reaction of 2 with excess C6F5R and pentafluoropyridine in the presence of K2CO3. With 4-C6F5OC6F4NO2, a mixture of (2-CF3C6F4OC6F4S)(4-C6F5O)C6F3NO2 (13) and 9 is formed. Reaction of excess 2 with C6F5R gives the 2,4,6-substituted benzenes (CF3C6F4OC6F4S)3C6F2R (R = NO2 (14), CN (15)). The trimethylsilyl ether CF3C6F4OC6F4OSiMe3 (16) is prepared from the reaction of 1 with hexamethyldisilazane. 16 Is a convenient reagent for the preparation of the aryl ethers CF3C6F4OC6F4OC6F4R (R = NO2 (17), CN (18)) and CF3C6F4OC6F4OC5F4N (19) upon reaction with C6F5R and C5F5N. The secondary alcs. CF3C6F4OC6F4CH(C6H5)OH (20) and CF3C6F4OC6F4CH(C6F5)OH (21) are synthesized by the reactions of 5 with benzaldehyde and pentafluorobenzaldehyde in the presence of tetrabutylammonium fluoride as a catalyst. In the synthesis of 21 the byproduct CF3C6F4OC6F4CH(C6F5)OC6F4CHO is also formed and isolated.
ACCESSION NUMBER: 1997:667252 CAPLUS
DOCUMENT NUMBER: 127:293323
TITLE: Synthesis and Chemistry of CF3C6F4OC6F4 Group 14/16 Derivatives
AUTHOR(S): Krumm, Burkhard; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1997), 36(23), 5222-5230
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:293323

IT **197150-21-3P 197150-22-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 197150-21-3 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3-(2,3,5,6-tetrafluoro-4-nitrophenoxy)-6-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)

L64 ANSWER 12 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 197150-22-4 CAPLUS
CN Benzonitrile, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]phenoxy]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L64 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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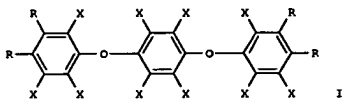


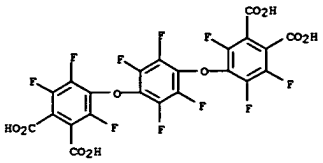
AB Phthalic acids I (R = CO2H; X = halo) are prepared by heating phthalonitriles I (R = cyano; X = halo) in acidic aqueous media, (A) dissolving the products in organic solvent-containing media, (B) separating the products, and (C) treating the isolated products in acidic aqueous media under heating. Then, the above processes A to C are repeated. ≥1 time(s). I (R = cyano, X = F) (10 g) was refluxed with aqueous H2SO4 for 6 h, diluted with H2O, filtered, and the crude product was dissolved in Me2CO. The solution was treated with H2O to give 10.8 g I (R = CO2H, X = F) (II) with purity 91.8%, which was refluxed with H2SO4 for 6 h and similarly treated. The process was repeated to give 9.8 g II with 99.2% purity.

ACCESSION NUMBER: 1997:377463 CAPLUS
DOCUMENT NUMBER: 127:33992
TITLE: Preparation of phthalic acids as intermediates for polyimides from phthalonitriles
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

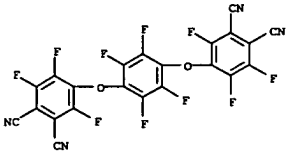
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110785	A2	19970428	JP 1995-266007	19951013
PRIORITY APPLN. INFO.:			JP 1995-266007	19951013

OTHER SOURCE(S): MARPAT 127:33992
IT **143363-92-2P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation and purification of phthalic acids as intermediates for polyimides
by acid hydrolysis of phthalonitriles)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 13 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and purification of phthalic acids as intermediates for polyimides
by acid hydrolysis of phthalonitriles)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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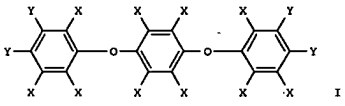


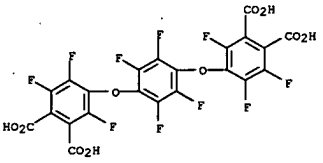
AB Title compds. I (X = halo; Y = CO2H) are prepared by heating I (Y = cyano) in acidic aqueous media, heating the product-containing media with alkaline substances, and separating I (Y = CO2H) from the media by mixing with acidic substances. An aqueous solution containing 10 g I (X = F, Y = cyano) and H2SO4 was refluxed for 6 h, mixing with H2O and NaOH (pH 11.8), refluxed for 1 h, and mixed with aqueous H2SO4 to give 10.8 g I (X = F, Y = CO2H) with 99.2% purity.

ACCESSION NUMBER: 1997:377462 CAPLUS
DOCUMENT NUMBER: 127:33986
TITLE: Preparation of phthalic acids as intermediates for polyimides
INVENTOR(S): Okumura, Yasunori; Yoshitoshi, Koji; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

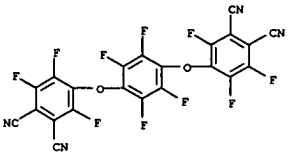
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09110784	A2	19970428	JP 1995-266006	19951013
PRIORITY APPLN. INFO.:			JP 1995-266006	19951013

OTHER SOURCE(S): MARPAT 127:33986
IT **143363-92-2P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis
of phthalonitriles and heating with alkalies)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

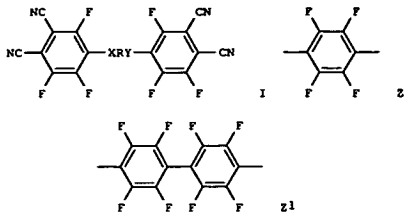
L64 ANSWER 14 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phthalic acids as intermediates for polyimides by hydrolysis
of phthalonitriles and heating with alkalies)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI



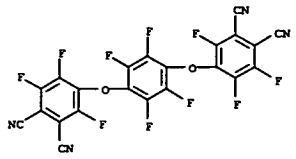
AB The title bisphthalonitriles I (X, Y = O, S; R = Z, Z1), useful as intermediates for optical materials, circuit board materials, photosensitive materials, liquid crystals, etc., are prepared by treatment of 3,4,5,6-tetrafluorophthalonitrile (II) with HXRYH in organic solvents being slightly soluble in H2O in the presence of basic substances, followed by addition of H2O to the reaction products and separation of the organic layer. An AcOEt solution of tetrafluorohydroquinone was added dropwise to a mixture of II, KF, and AcOEt under reflux over 1 h, and the reaction mixture was further stirred under reflux for 8 h, cooled, and then washed with H2O to give 99% I (X = Y = O, R = Z).

ACCESSION NUMBER: 1997:154684 CAPLUS
DOCUMENT NUMBER: 126:157295
TITLE: Preparation of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone or fluorodiphenol
INVENTOR(S): Okumura, Yasunori; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08333322	A2	19961217	JP 1995-143593	19950609
PRIORITY APPLN. INFO.:			JP 1995-143593	19950609

OTHER SOURCE(S): CASREACT 126:157295; MARPAT 126:157295
IT **143376-50-5P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

L64 ANSWER 15 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(Preparation)
(prepn. of bis(fluorophthalonitriles) from tetrafluorophthalonitrile and fluorohydroquinone, diphenol, or their sulfur analog using slightly water-sol. solvents and basic substances)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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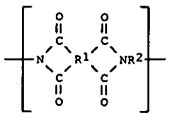
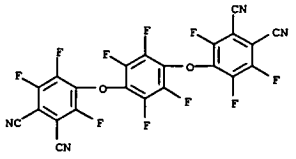


AB Polyimide optical materials comprise a perfluorinated polyimide having a perfluorinated repeating unit represented by the general formula I (R1 = a tetravalent perfluorinated organic group; and R2 = a divalent perfluorinated organic group).

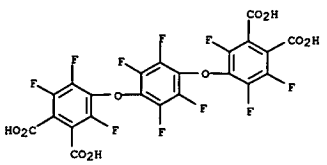
ACCESSION NUMBER: 1995:854348 CAPLUS
DOCUMENT NUMBER: 123:354214
TITLE: Polyimide optical material
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corporation, Japan
SOURCE: U.S., 26 pp. Cont.-in-part of U.S. Ser. No. 54,973, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5449741	A	19950912	US 1993-140982	19931025
JP 09031014	A2	19970204	JP 1996-207475	19910913
US 5233018	A	19930803	US 1991-765672	19910926
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 5750731	A	19980512	US 1996-718208	19960920
US 5849934	A	19981215	US 1998-20573	19980128
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		
PRIORITY APPLN. INFO.:			JP 1990-256843	A 19900928
			JP 1991-106552	A 19910412
			JP 1991-106554	A 19910412
			JP 1991-106557	A 19910412
			US 1991-765672	A3 19910926
			US 1993-54973	B2 19930430
			JP 1991-235020	A3 19910913
			CA 1991-2052368	A3 19910926
			US 1993-140482	A3 19931025
			US 1993-140982	A3 19931025
			US 1995-451465	A1 19950526
			US 1996-718208	A3 19960920
			US 1998-20573	A3 19980128

L64 ANSWER 16 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
IT **143376-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyimide optical materials)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-92-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reg; polyimide optical materials)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



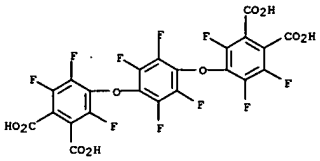
L64 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AB High resolution fluorine-19 NMR spectra of polyfluoroarom. compds. dissolved in deuterated DMSO were measured and substituent shielding parameters were derived. These parameters were compared with the values observed in deuterated chloroform solns. and used to identify fluoroarom. compds. related to perfluorinated polyimides and poly(amic acids)s. Average differences of Δδ between the solvents are 1.1, 1.0 and 2.1 ppm for o-, m- and p-fluorines of monosubstituted pentafluorobenzenes, resp. The significant difference for p-fluorine of NH2 is important in identifying perfluorinated diamines because they are source materials for perfluorinated polyimides. Substituent shielding parameters for meta and para substitution increase as the resp. Hammett σ consts. increase, which indicates that fluorine-19 NMR chemical shift is primarily determined by electron d.

ACCESSION NUMBER: 1995:736766 CAPLUS
DOCUMENT NUMBER: 123:227514
TITLE: Substituent shielding parameters of fluorine-19 NMR on polyfluoroaromatic compounds dissolved in dimethyl sulfoxide-d6
AUTHOR(S): Ando, Shinji; Matsuura, Tohru
CORPORATE SOURCE: NTT Interdisciplinary Research Laboratories, Tokyo, 180, Japan
SOURCE: Magnetic Resonance in Chemistry (1995), 33(8), 639-45
CODEN: MRCHEG; ISSN: 0749-1581
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

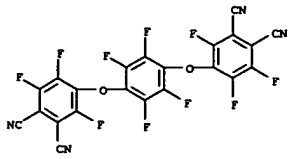
IT **143363-92-2 143376-50-5 168417-33-2**
RL: PRP (Properties)
(substituent shielding parameters in fluorine-19 NMR study of polyfluoroarom. compds.)

RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

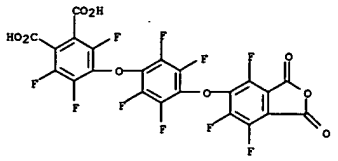


RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 17 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 168417-33-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 3,4,6-trifluoro-5-[2,3,5,6-tetrafluoro-4-[(4,6,7-trifluoro-1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)oxy]phenoxy]- (9CI) (CA INDEX NAME)



L64 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

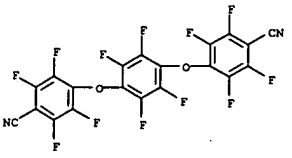
AB In the presence of fluoride ion, per- or polyfluoroarom. siloxanes C6F5OSi(CH3)3 (1), (CH3)3SiOC6F4OSi(CH3)3 (2), 1-fluoro-2,3-bis((trimethylsilyl)oxy)benzene (3), and (CH3)3SiOC(CF3)2C6F4C(CF3)2OSi(CH3)3 (4) are useful transfer reagents for the synthesis of mono- and diethers. Siloxane 1 forms RfOCF2Br (5), (RfO)3CF (6), RfOCH2ORf (7), (RfO)2CHCH(ORf)2 (8), (RfO)2SO (9), (RfO)2CO (10), C3N3(ORf)3 (11), RfOC(O)(CF2)3C(O)ORf (12), CF3SO2ORf (13), [cyclic] CF2C(ORf):C(ORf)CF2 (14), and [cyclic] CF2C(ORf):C(F)CF2 (15) (Rf = C6F5) with CF2Br2, CFBr3, CH2Br2, Br2CHCHBr2, SOF2, COF2, (CNF)3, ClC(O)(CF2)3C(O)Cl, CF3SO2F, 1,2-dichlorotetrafluorocyclobutene, and perfluorocyclobutene, resp. Compound 5 is readily converted to C6F5OCF2Si(CH3)3 (16) with hexaethylphosphorous triamide and (CH3)3SiCl in benzonitrile. With C6F5CN, CF3C6F5, C5F5N, CH3I, perfluorocyclobutene, CF3C(O)Cl and (CNF)3, 2 forms diethers p-CNC6F4OC6F4OC6F4CN-p (17), p-CF3C6F4OC6F4OC6F4CF3-p (18), NC5F4OC6F4OC5F4N (19), CH3OC6F4OCH3 (20), and C2F5C(O)OC6F4OC(O)C2F5 (21), resp. Reaction of 3 with 1,2-diiodotetrafluorobenzene in diglyme gives 1,4,9-trifluoro-2,3-diiodophenozine (22). Disiloxane 4 with C6H5CH2Br, CH3I, C6F5CH2Br, and COF2 results in C6H5CH2OC(CF3)2C6F4C(CF3)2OCH2C6H5 (23), CH3OC(CF3)2C6F4C(CF3)2OCH3 (24), C6F5CH2OC(CF3)2C6F4C(CF3)2OCH2C6F5 (25), and [cyclic]-C(O)OC(CF3)2C6F4C(CF3)2OC(O)OC(CF3)2C6F4C(CF3)2O (26), resp. These materials are thermally and hydrolytically stable and are formed in high yields.

ACCESSION NUMBER: 1995:269201 CAPLUS
DOCUMENT NUMBER: 122:133262
TITLE: Per- and Polyfluoroaryl Mono- and Disiloxanes as Transfer Reagents in the Synthesis of Highly Fluorinated Mono- and Diethers
AUTHOR(S): Patel, Nimesh R.; Chen, Jianguo; Kirchmeier, Robert L.; Shreeve, Jean'ne M.
CORPORATE SOURCE: Department of Chemistry, University of Idaho, Moscow, ID, 83844-2343, USA
SOURCE: Inorganic Chemistry (1995), 34(1), 13-17
CODEN: INOCAJ; ISSN: 0020-1669
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:133262

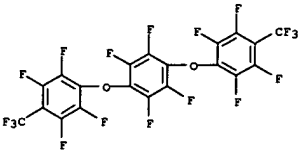
IT **15053-71-1P 15077-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 15053-71-1 CAPLUS
CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 18 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 15077-30-2 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)



L64 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

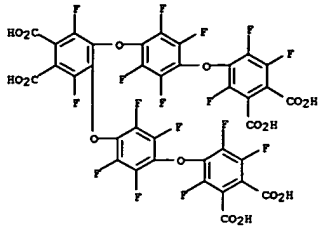
AB Title compds. I, useful as material for hardeners for fluorinated epoxy resins (no data), is prepared via II [R = cyano, CO2H]. Thus, a mixture of tetrafluorophthalonitrile, tetrafluorohydroquinone, and Et3N in DMF was heated at 35° for 30 to give 21% II [R = cyano], which was treated with 60% H2SO4 at 150° for 5 h to give 26% II [R = CO2H], which was refluxed with Ac2O for 2 h to 52% I.

ACCESSION NUMBER: 1994:630662 CAPLUS
DOCUMENT NUMBER: 121:230662
TITLE: preparation of a perfluorinated hexacarboxylic acid as material for hardeners for fluorinated epoxy resins
INVENTOR(S): Sasaki, Shigekuni; Matsura, Tooru; Ando, Shinji
PATENT ASSIGNEE(S): Nippon Telegraph & Telephone, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

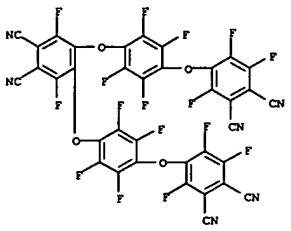
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06157501	A2	19940603	JP 1992-340986	19921130
PRIORITY APPLN. INFO.:			JP 1992-340986	19921130

OTHER SOURCE(S): CASREACT 121:230662
IT **158394-12-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and conversion into trianhydride)
RN 158394-12-8 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,5-bis[4-(3,4-dicarboxy-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 19 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



IT **158394-11-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 158394-11-7 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,5-bis[4-(3,4-dicyano-2,5,6-trifluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-3,6-difluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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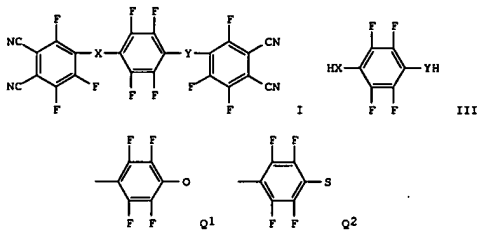


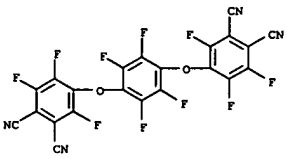
AB The title derivs. I (X = O, S; Y = O, S, Q1, Q2) are prepared by treating ≥8 mol 3,4,5,6-tetrafluorophthalonitrile (II) with 1 mol phenols or thiophenols III in the presence of basic substances in organic solvents.
A mixture of 0.22 mol II and KF in MeCN was treated dropwise with a solution of 0.011 mol III (X = Y = O) in MeCN under reflux over 1 h, then refluxed for 4 h to give 99% I.

ACCESSION NUMBER: 1994:435030 CAPLUS
DOCUMENT NUMBER: 121:35030
TITLE: Preparation of fluorine-containing phthalonitrile derivatives as intermediates for fluorine-containing polyimides
INVENTOR(S): Kaieda, Osamu; Okumura, Yasunori; Ito, Hideki
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016615	A2	19940125	JP 1992-176633	19920703
JP 08000803	B4	19960110		
PRIORITY APPLN. INFO.:			JP 1992-176633	19920703

OTHER SOURCE(S): CASREACT 121:35030; MARPAT 121:35030
IT **143376-50-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate for polyimides)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)

L64 ANSWER 20 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L64 ANSWER 21 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
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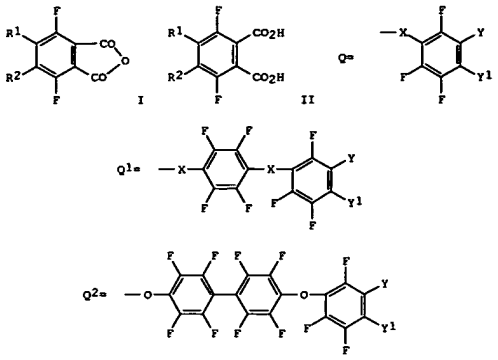


AB The title compds. (I; R1, R2 = F, C1-12 linear or branched alkoxy, C1-12 alkylthio, C1-12 alkylamino, aryloxy, arylthio, arylamino, Q - Q2; X = O, S; YY1 = CO2CO), useful as intermediates for drugs, agrochems., optical materials, printed circuit board materials, photosensitive materials, and liquid crystal materials, are prepared by heating F-containing phthalic acid derivs. (II; R1, R2, X = same as above; Y, Y1 = CO2H) in a solvent selected from SOCl2, POCl3, or AcCl at 40-105°. The process is safe and gives perfluorophthalic anhydride derives. I of high purity in high yields. Thus, 70.5 g SOCl2 was added to 30.0 g tetrafluorophthalic acid and the resulting mixture was allowed to react at 70° for .apprx.3 h to give 97% tetrafluorophthalic anhydride.

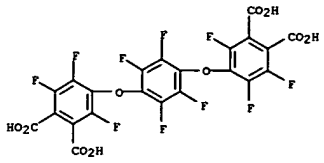
ACCESSION NUMBER: 1994:298457 CAPLUS
DOCUMENT NUMBER: 120:298457
TITLE: Preparation of fluorine-containing phthalic anhydride derivatives
INVENTOR(S): Okumura, Yasunori; Ito, Hideki; Kaieda, Osamu
PATENT ASSIGNEE(S): Nippon Catalytic Chem Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06016656	A2	19940125	JP 1992-175450	19920702
JP 3130653	B2	20010131		
PRIORITY APPLN. INFO.:			JP 1992-175450	19920702

OTHER SOURCE(S): CASREACT 120:298457; MARPAT 120:298457

IT 143363-92-2
RL: PROC (Process)
(conversion of, into acid anhydride)

RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 22 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN

AB The filter, comprising a dielec. multibilayer, is characterized in that the substrate consists of a thin-film perfluoropolyimide or a blend or a copolymer thereof.

ACCESSION NUMBER: 1993:417687 CAPLUS
DOCUMENT NUMBER: 119:17687
TITLE: IR longpass dielectric interference filter
INVENTOR(S): Yamamoto, Fumio; Sasaki, Shigekuni; Matsura, Toru; Ando, Shinji; Oguchi, Taisuke
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

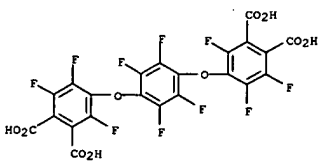
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04328502	A2	19921117	JP 1991-125451	19910426
PRIORITY APPLN. INFO.:			JP 1991-125451	19910426

IT 148273-08-9
RL: USES (Uses)
(fluorinated polyimide blends containing, IR longpass filters containing)

RN 148273-08-9 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro-, polymer with 2,4,5,6-tetrafluoro-1,3-benzenediamine (9CI) (CA INDEX NAME)

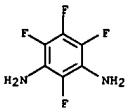
CM 1

CRN 143363-92-2
CMF C22 H4 F10 O10

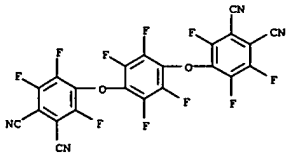


CM 2

CRN 1198-63-6
CMF C6 H4 F4 N2



L64 ANSWER 23 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB A perfluorinated polyimide that has glass temperature >300° and high optical transparency over the entire optical communication wavelengths was synthesized. The high thermal stability and optical transparency in near-IR region are due to the fully aromatic mol. structure and the absence of C-H bonds. The use of a diamine with relatively high reactivity and a new perfluorinated dianhydride, which has flexible structure, makes it possible to obtain a tough and flexible perfluorinated polyimide film. In addition, this polymer has a low dielec. constant Perfluorinated polyimides are promising for use as optical-electronic materials.
ACCESSION NUMBER: 1992:592808 CAPLUS
DOCUMENT NUMBER: 117:192808
TITLE: Perfluorinated polyimide synthesis
AUTHOR(S): Ando, Shinji; Matsuura, Tohru; Sasaki, Shigekuni
CORPORATE SOURCE: Interdiscip. Res. Lab., NTT, Musashino, 180, Japan
SOURCE: Macromolecules (1992), 25(21), 5858-60
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **143376-50-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



L64 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polymers, useful as waveguidees in optoelectronic integrated circuits or optoelec. boards, are prepared from perfluoro tetracarboxylic acid derivs. and perfluoro diamines, the preparation of which is described. Polymerization of 4,4'-(tetrafluoro-p-phenylene)bis(3,5,6-trifluorophthalic anhydride) with tetrafluoro-1,3-phenylenediamine gave a polymer with no substantial absorption at optical communication wavelengths.
ACCESSION NUMBER: 1992:531752 CAPLUS
DOCUMENT NUMBER: 117:131752
TITLE: Monomers for preparation of perfluorinated polyamic acids and polyimides
INVENTOR(S): Ando, Shinji; Matsuura, Toru; Sasaki, Shigekuni; Yamamoto, Fumio
PATENT ASSIGNEE(S): Nippon Telegraph and Telephone Corp., Japan
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

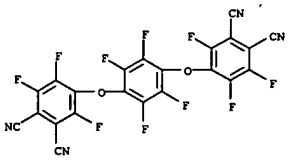
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 480266	A2	19920415	EP 1991-116553	19910927
EP 480266	A3	19930901		
EP 480266	B1	19960626		
R: DE, FR, GB				
JP 05001148	A2	19930108	JP 1991-235020	19910913
JP 2851019	B2	19990127		
JP 09031014	A2	19970204	JP 1996-207475	19910913
CA 2052368	AA	19920329	CA 1991-2052368	19910926
CA 2052368	C	19980915		
CA 2199703	C	20001031	CA 1991-2199703	19910926
US 6048986	A	20000411	US 1998-98605	19980617
JP 11147955	A2	19990602	JP 1998-251741	19980803
JP 3085666	B2	20000911		

PRIORITY APPLN. INFO.:

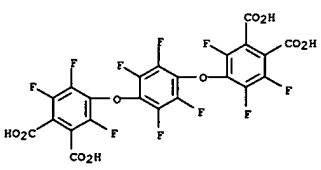
JP 1990-256843	A	19900928
JP 1991-106552	A	19910412
JP 1991-106554	A	19910412
JP 1991-106557	A	19910412
JP 1991-235020	A3	19910913
CA 1991-2052368	A3	19910926
US 1991-765672	A3	19910926
US 1993-54973	B2	19930430
US 1993-140482	A3	19931025
US 1995-451465	B1	19950526
US 1996-718208	A3	19960920

L64 ANSWER 24 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
US 1998-20573 A3 19980128

IT **143376-50-5P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 143376-50-5 CAPLUS
CN 1,2-Benzenedicarbonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



IT **143363-92-2P**
RL: PREP (Preparation)
(preparation of)
RN 143363-92-2 CAPLUS
CN 1,2-Benzenedicarboxylic acid, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[3,5,6-trifluoro- (9CI) (CA INDEX NAME)



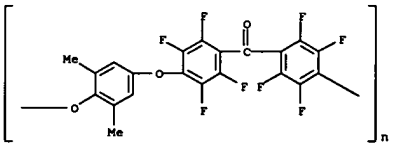
L64 ANSWER 25 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB The title polymers, e.g., polyether-polyketones, polyarylates, polyimides, and polyesters, have good heat resistance and low attenuation and are useful as optical transmitting systems, e.g., for controlling ignition timing and fuel metering systems for internal combustion engines in automobiles. Thus, an optical fiber comprised a core of amorphous PEEK and a sheath of poly(2,2,2-trifluoroethyl methacrylate).
ACCESSION NUMBER: 1992:130739 CAPLUS
DOCUMENT NUMBER: 116:130739
TITLE: Amorphous polymers for optical transmitting systems and optical members and their use
INVENTOR(S): Takezawa, Yoshitaka; Ohara, Shuichi; Tanno, Seikich; Taketani, Noriaki; Shimura, Masato
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 454165	A2	19911030	EP 1991-106851	19910426
EP 454165	A3	19930120		
R: DE, FR, GB, IT, NL				
JP 04009805	A2	19920114	JP 1990-112511	19900427
JP 2854669	B2	19990203		
US 5093888	A	19920303	US 1991-686997	19910418

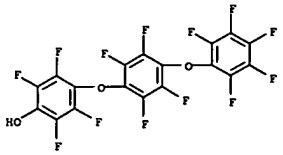
PRIORITY APPLN. INFO.:

JP 1990-112511	A	19900427

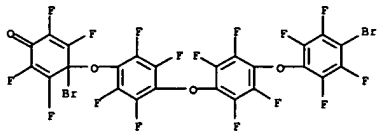
IT **138687-03-3**
RL: USES (Uses)
(optical fibers, heat-resistant, for engine control systems)
RN 138687-03-3 CAPLUS
CN Poly[oxy(2,6-dimethyl-1,4-phenylene)oxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)



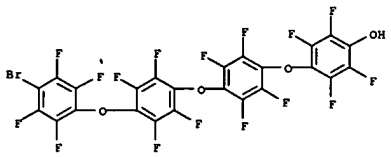
L64 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl
ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).
ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts
Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **53359-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53359-93-6 CAPLUS
CN Phenol, 2,3,5,6-tetrafluoro-4-[2,3,5,6-tetrafluoro-4-(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



L64 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The controlled oxidation of perhalo p-bromophenols (I), (II), and (III) gives
the corresponding perhalo polyethers (IV); the perchloro 4-aryloxycyclohexa-2,5-dienone (V) is obtained from pentachlorophenol (VI). Similarly, VII gives VIII and 4-chloro-2,3,5,6-tetrabromophenol gives IX.
ACCESSION NUMBER: 1971:111698 CAPLUS
DOCUMENT NUMBER: 74:111698
TITLE: Oxidation of pentahalo benzenic phenols
AUTHOR(S): Denivelle, Leon; Lampel, Alfred
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conserv. Natl. Aris Metiers, Paris, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,
Serie C: Sciences Chimiques (1971), 272(7), 653-6
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **31404-37-2P 31404-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31404-37-2 CAPLUS
CN 2,5-Cyclohexadien-1-one, 4-bromo-4-[4-[4-(4-bromo-2,3,5,6-tetrafluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

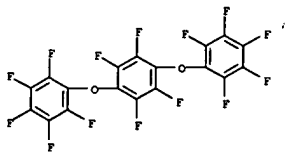


RN 31404-38-3 CAPLUS
CN Phenol, 4-[4-[4-(4-bromo-2,3,5,6-tetrafluorophenoxy)-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluorophenoxy]-2,3,5,6-tetrafluoro- (8CI)
(CA INDEX NAME)

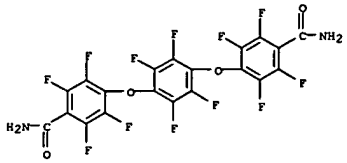


L64 ANSWER 27 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L64 ANSWER 28 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB A number of perfluorinated and partially fluorinated phenyl and polyphenyl
ethers were synthesized, characterized for thermal stability, fire resistance, and viscosity, and compared with their H analogs to assess the
potential use of this class of compds. as functional fluids. Without exception, polyfluorination and perfluorination lower thermal stability; the decrease in stability depends on the position and number of fluorine substituents. The autoignition temperature and fire resistance are not improved
over the H analog, and viscosity is degraded. These data coupled with the
comparatively high melting points do not suggest a bright future for this class of compds. as useful functional fluids. 6 references.
ACCESSION NUMBER: 1968:77890 CAPLUS
DOCUMENT NUMBER: 68:77890
TITLE: Synthesis, thermal stability, flammability, and viscosity of some partially fluorinated and perfluorinated aromatic and polyaromatic ethers
AUTHOR(S): Richardson, George Albert; Blake, Edward S.
CORPORATE SOURCE: Monsanto Res. Corp., Dayton, OH, USA
SOURCE: Industrial & Engineering Chemistry Product Research and Development (1968), 7(1), 17-21
CODEN: IEPRA6; ISSN: 0196-4321
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **6804-37-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 6804-37-1 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)

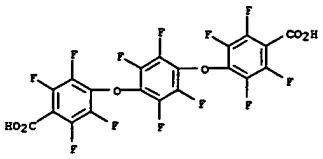


L64 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB 2,3,5,6-Tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]hydroquinones (I) and 2,4,5,6-tetrafluoro-O,O'-bis[4-(X-substituted)-2,3,5,6-tetrafluorophenyl]resorcinols (II) are prepared by the treatment of the compds. of the general formulas C6F5X, where X is CN, CF3, CONH2, and CO2H, with 2,3,5,6-tetrafluorohydroquinone di-Na salt and 2,4,5,6-tetrafluororesorcinol di-Li salt (III), resp. 19F-N.M.R. and ir data for the prepared I and II are given. III is treated with decafluorocyclohexene to give a mixture of 2,4,5,6-tetrafluoro-O,O'-bis(perfluoro-1-cyclohexen-1-yl)resorcinol and 2,4,5,6-tetrafluoro-O-(perfluoro-1-cyclohexen-1-yl)-O'-(perfluoro-2-cyclohexen-1-yl)resorcinol.
ACCESSION NUMBER: 1968:68571 CAPLUS
DOCUMENT NUMBER: 68:68571
TITLE: Reactions of perfluorophenolates with substituted pentafluorobenzenes and perfluorocyclohexene
AUTHOR(S): De Pasquale, Ralph J.; Tamborski, Christ
CORPORATE SOURCE: Wright-Patterson Air Force Base, Dayton, OH, USA
SOURCE: Journal of Organic Chemistry (1968), 33(2), 830-3
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **14796-02-2P 14796-03-3P 15053-71-1P 15077-30-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 14796-02-2 CAPLUS
CN Benzamide, 4,4'-[(2,3,5,6-tetrafluoro-p-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

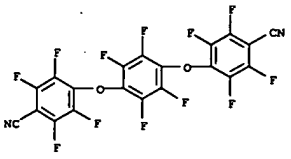


RN 14796-03-3 CAPLUS
CN Benzoic acid, 4,4'-[(2,3,5,6-tetrafluoro-p-phenylene)dioxy]bis[2,3,5,6-tetrafluoro- (8CI) (CA INDEX NAME)

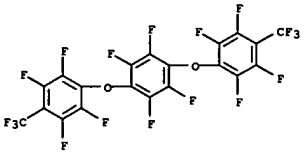
L64 ANSWER 29 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 15053-71-1 CAPLUS
CN Benzonitrile, 4,4'-[(2,3,5,6-tetrafluoro-1,4-phenylene)bis(oxy)]bis[2,3,5,6-tetrafluoro- (9CI) (CA INDEX NAME)



RN 15077-30-2 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]- (9CI) (CA INDEX NAME)

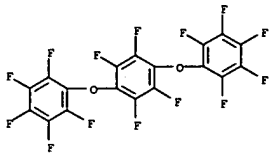


L64 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN
AB A mixture of 26.5 g. C6F6, 26.5 g. 85% KOH, and 75 ml. H2O was heated in a sealed bomb at 175° for 5 hrs. with agitation to give 33.1 g. C6F5OH, b. 144-5°. A mixture of 67 g. C6F5H, 21.6 g. KOH, 150 ml. pyridine, and 2 ml. H2O was refluxed 1 hr., treated with 21.6 KOH, and refluxed 24 hrs. to give 21 g. 2,3,5,6-tetrafluorophenol, b20 47°. Similarly refluxing 36 g. C6F5Me and 28 g. KOH in 300 ml. tert-BuOH gave 12 g. 2,3,5,6-tetrafluoro-p-cresol, m. 52°. Reaction of 20 g. C6F5I with 2 g. KOH and 1 ml. H2O in 100 ml. pyridine gave only one product, 2,3,5,6-tetrafluoro-4-iodophenol, m. 79-81°; benzoate m. 59-60.2°. Reaction of 66 g. C6F5Br with 28.5 g. KOH and 1 ml. H2O in 150 ml. pyridine, however, gave a mixture of products: 3.5 g. 2-bromo-3,4,5,6-tetrafluorophenol, m. 41-3° (3,5-dinitrobenzoate, m. 104-5°); and 11.5 g. 4-bromo-2,3,5,6-tetrafluorophenol (3,5-dinitrobenzoate m. 131-3°). Similarly, 100 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene on treatment with 5.6 g. KOH and 1 ml. H2O in 100 ml. pyridine gave 2.5 g. 2-chlorotrifluoro-α,α,α-trifluoro-o-cresol, b15 92-3°, n24D 1.4510; and 15 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-cresol, b15 102-3°, n24D 1.4510. The reactions of polyfluorobenzenes were then studied with alkoxides. A solution of 123.5 g. C6F5Br in 70 ml. pyridine was treated with a solution of 11.5 g. Na in 150 ml. MeOH during 1.5 hrs. and the mixture refluxed 15 hrs. and acidified with 1 l. 10% HCl to give 66 g. 4-bromo-2,3,5,6-tetrafluoroanisole, b5 79-81°, n25D 1.4812. Similarly, a mixture of 10 g. C6F5I in 50 ml. pyridine and 0.8 g. Na in 15 ml. MeOH on refluxing for 3 hrs. gave 1.5 g. unchanged C6F5I and 5.5 g. 2,3,5,6-tetrafluoro-4-iodoanisole (I), b20 113-15°, n22D 1.5229. Refluxing 1 g. I with 1 g. activated Cu powder for 12 min. gave 0.2 g. octafluoro-4,4'-dimethoxybiphenyl, m. 90-1.2°. To a cold solution of 9 g. Na in 250 ml. PhCH2OH was added 75 g. C6F6 and the mixture refluxed 24 hrs. to give 30 g. benzyl pentafluorophenyl ether (II), m. 44°. A better yield was obtained when a solution of 4.6 g. Na and 22 g. PhCH2OH in 250 ml. tert-BuOH was refluxed with 40 g. C6F6 for 40 hrs. to give 33 g. II. A solution of 8 g. C6F6 in 30 ml. HCONMe2 was treated with 5.28 g. PhOK and the mixture refluxed 0.5 hr. to give 1 g. 2,3,5,6-tetrafluoro-1,4-diphenoxybenzene, m. 147-9°, and 3.5 g. 2,3,4,5,6-pentafluorophenyl phenyl ether, (III), m. 29°. III was also obtained by heating a mixture of 11 g. C6F5OK, 15 g. PhBr, and 1 g. Cu at 210° in a sealed bomb. A solution of 6 g. C6F5OK and 12.8 g. C6F6 in 30 ml. HCONMe2 was refluxed 14 hrs. to give 1.5 g. bis(perfluorophenyl) ether, m. 67-9°, and a second product, m. 145-8°, probably p-bis(pentafluorophenoxy)2,3,5,6-tetrafluorobenzene. Similarly, a solution of 0.6 g. Na in 50 ml. EtOH refluxed with 5.3 g. C6F5NMe2 2 hrs. gave 5.1 g. 4-ethoxy-2,3,5,6-tetrafluoro-N,N-dimethylaniline, b. 34°. Reactions with amines were next investigated. A mixture of 280 g. C6F6 and 400 ml. 28% aqueous NH3 was rocked in a sealed bomb for 2 hrs. at 235° to give 236 g. C6F5NH2, m. 34°, and 28 g. tetrafluorophenylenediamine (sublimed 75°/1 mm.) shown by its nuclear magnetic resonance spectrum to be essentially the meta isomer mixed with a small amount of the para isomer. Similarly, heating a mixture of

L64 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
56 g. C6F6 and 110 ml. 30% aq. MeNH2 at 220° for 3 hrs. gave 59% C6F5NHMe, b. 170-2°, and 25% 2,3,5,6-tetrafluoro-N,N'-diphenylphenylenediamine, m. 94°. The reaction product obtained by heating 50 g. C6F6 and 110 ml. 25% aq. Me2NH at 235° for 1 hr. was distd. at 1 mm. pressure and five fractions were collected. The first fraction (65%), b1 88°, was C6F5NMe2. Fraction 2, b1 88-126°, was shown by vapor phase chromatography to be C6F5NMe2 with 3 other compds. Fraction 3, b1 126-134°, consisted of 3 isomers of bis(dimethylamino)tetrafluorobenzene with the meta-isomer predominating. Fraction 4, b1 134-40°, contained equal amts. of the meta and para isomers. Fraction 5, b1 140-8°, was pure para isomer. The meta and para isomers could be sepd. by vapor phase chromatography. Similarly, heating a mixt. of 30 g. C6F5Br and 70 ml. 28% NH4OH at 200° for 2 hrs. gave 22 g. p-bromotetrafluoroaniline, m. 61°. Heating 16 g. C6F5I and 30 ml. 8% NH4OH at 165° for 2 hrs. gave 7.6 g. tetrafluoro-p-iodoaniline, m. 77°. Benzyl pentafluorophenyl ether (20 g.) was heated with large excess of 28% NH4OH to give 3 g. p-(benzyloxy)tetrafluoroaniline, m. 97°. Similarly, heating 50 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene and 120 ml. 28% NH4OH at 21° for 2 hrs. gave 22 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-toluidine, which decompd. readily at room temp. in the presence of air. To 100 ml. anhyd. NH3 at -70° were added 0.1 g. Fe(NO3)3 and 2.99 g. Na and, after disappearance of the blue color, 25 g. C6F5OMe during 45 min. After 5 hrs. at -70° the reaction mixt. was worked up to give 7 g. unreacted C6F5OMe, 2.8 g. tetrafluoro-p-anisidine, m. 75-6.5°, 1.2 g. 4,4'-dimethoxyoctafluorodiphenylamine, m. 78-9°, and 2.2 g. 4,4',4''-trimethoxydodecafluorotriphenylamine, b. 157-9°, n23D 1.5005. Diazotization of C6F5NH2 required concd. acids since the salts of the amine hydrolyzed very readily in dil. solns. In 48% HBr, diazotization of C6F5NH2 gave C6F5N:NNHC6F5, probably owing to slow diazotization. The reaction was temp.-dependent, the diazoaminobenzene being formed much faster at 10° than at -10°. The product decompd. in warm HBr to give 5.4% C6F5Br and a mixt. of o- and p-dibromotetrafluorobenzenes. In concd. H2SO4 the reaction was very slow even at 25°. Addition of HOAc hastened it. Deamination with hypophosphorus acid gave a mixt. probably of C6F5H and C6H2F4. Better diazotization could be carried out in liquid HF and the diazo product underwent successful Sandmeyer reaction. A soln. of 20 g. C6F5NH2 in 75 ml. anhyd. HF at -20° was treated with 7.27 g. NaNO2 during 30 min. After stirring for 1 hr. at -10° the mixt. was treated with 17.6 g. KI during 30 min. and allowed to warm to 25° in 1 hr. to give 16.5 g. C6F5I, b35 77-9°. Use of 12 g. KBr and 15 g. Cu2Br2 instead of KI gave 35% C6F5Br. The reaction of diazotized amine with C6F5OLi gave C6F5N:N(O)C6F5, which decompd. on removal of solvent. The Sandmeyer nitrile synthesis was not successful. A soln. of 10 g. C6F5NH2 in 100 ml. HOAc was oxidized with 25 ml. 30% H2O2 at 25° for 24 hrs. to give decafluoroazoxybenzene (IV), m. 53-4°. A mixt. of 5 g. IV, 15 g. Zn powder, 5 g. NH4Cl, 10 ml. H2O, and 75 ml. 95% EtOH refluxed 30 min. gave 2 g. decafluoroazobenzene, m. 57-9°. C6F6 reacted readily with organolithium compds. A soln. of MeLi, prepd. from 4.5 g. Li and 43 g. MeI in 50 ml. ether, was cooled to -10° to -20°, added dropwise to a soln. of 60 g. C6F6 in 250 ml. pentane, and stirred for 17 hrs. at room temp. to give 34 g. C6F5Me, b. 115°. Similarly, reaction of BuLi, prepd. from 1.86 g. Li and 18.3 g. BuBr in 30 ml. ether,

L64 ANSWER 30 OF 30 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
with 25.3 g. C6F6 in 25 ml. ether gave 10.5 g. unreacted C6F6, 7 g. C6F5Bu, b25 86-7°, n20D 1.4229, and 2.5 g. of a compd., bl 230°, n20D 1.4683, probably impure tributyldifluorobenzene. Similarly, 32.7 g. C6F6 in 150 ml. ether with 0.18 mole PhLi in 250 ml. ether gave 8.5 g. 2,3,5,6-tetrafluoro-p-terphenyl, m. 220°, and 33 g. C6F5Ph, m. 69°. A similar reaction of 18.6 g. C6F6 and isopropenyllithium prepd. from 12.1 g. 2-bromopropene gave 5 g. 2,3,4,5,6-pentafluoro-α-methylstyrene, b52 72-4°. With vinyllithium, prepd. from 0.1 mole PhLi and 0.025 mole tetravinyltin, 18.6
g. C6F6 gave 4 g. unreacted C6F6 and 20% C6F5CH:CH2, b25 34°. LiAlH4 redn. of 21 g. C6F6 in ether gave 17 g. of a mixt. of C6F6 and C6F5H which was sepd. by vapor phase chromatography to give 7.5 g. C6HF5. All the products in all above reactions were studied by infrared and nuclear magnetic resonance spectroscopy. The mechanism of reaction and the directional effects were discussed.

ACCESSION NUMBER: 1964:52434 CAPLUS
DOCUMENT NUMBER: 60:52434
ORIGINAL REFERENCE NO.: 60:9170b-h,9171a-e
TITLE: Reactions of polyfluorobenzenes with nucleophilic reagents
AUTHOR(S): Wall, Leo A.; Pummer, Walter J.; Fearn, James E.; Antonucci, Joseph M.
SOURCE: J. Res. Natl. Bur. Std. (1963), 67A(5), 481-97
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 6804-37-1, Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)-(?)
(preparation of)
RN 6804-37-1 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)



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CA SUBSCRIBER PRICE                                       -21.90    -374.49

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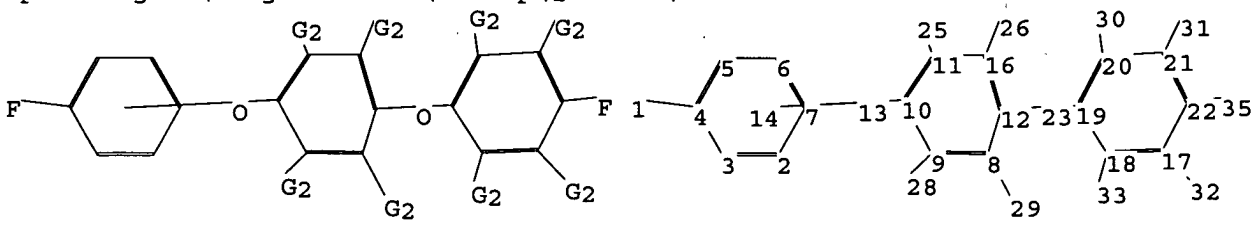


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22-35
ring bonds :
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exact/norm bonds :
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exact bonds :
1-4  22-35
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normalized bonds :
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18-19 19-20 20-21 21-22

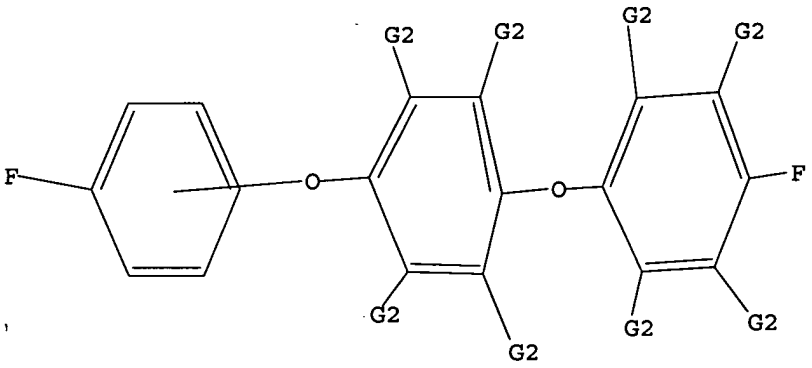
G1:N,X

G2:X,Ak,H

Match level :
1:CLASS 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 14:CLASS 16:CLASS 17:Atom 18:Atom 19:Atom 20:Atom
21:Atom 22:Atom 23:CLASS 25:CLASS 26:CLASS 28:CLASS 29:CLASS 30:CLASS
31:CLASS 32:CLASS 33:CLASS 35:CLASS

L65 STRUCTURE UPLOADED

=> d query
L65 STR



G1 N,X
G2 X,Ak,H

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 51 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
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PROJECTED ITERATIONS: 592 TO 1448
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L66 0 SEA SSS SAM L65

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L67           5 SEA SSS FUL L65

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FILE COVERS 1907 - 12 Jan 2005  VOL 142 ISS 3
FILE LAST UPDATED: 11 Jan 2005  (20050111/ED)

  This file contains CAS Registry Numbers for easy and accurate
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L68           6 L67

=> d l68 1-6 abs ibib hitstr
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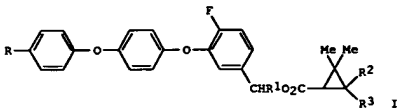
L68 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
GI



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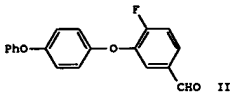


II

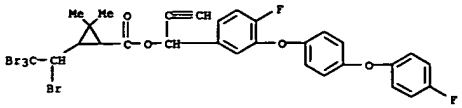
AB Benzyl cyclopropanecarboxylates I (R = H, F, Cl, Br; R1 = H, cyano, C.tplbond.CH; R2 = H, Me; R3 = CH:CCl2, CHBrCBrCl2, CHBrCBr3, Me), having insecticidal and acaricidal activities at 500 ppm with low fish toxicity, were prepared e.g. from II. Thus, 6.0 mmol NaCN and 0.88 mmol PhCH2NEt3Cl in H2O was treated dropwise with 4.0 mmol II and 4.2 mmol dl-cis,trans-2,2-dimethyl-3-(2,2-dichlorovinyl)cyclopropanecarbonyl chloride in PhMe to give 1.93 g I (R = R2 = H, R1 = cyano, R3 = CH:CCl2).

ACCESSION NUMBER: 1984:610760 CAPLUS
DOCUMENT NUMBER: 101:210760
TITLE: Insecticidal cyclopropanecarboxylate esters
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

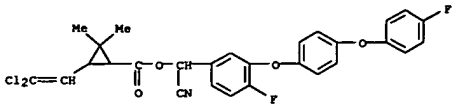
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59134749	A2	19840802	JP 1983-8536	19830120
PRIORITY APPLN. INFO.:			JP 1983-8536	19830120

IT 90928-31-7P 93207-48-8P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and insecticidal activity of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

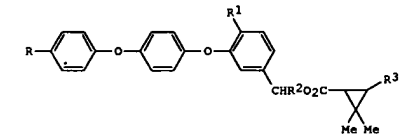
L68 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 93207-48-8 CAPLUS
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]methyl ester (9CI) (CA INDEX NAME)



L68 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
GI



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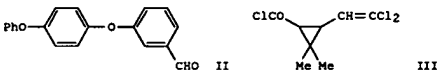


II III

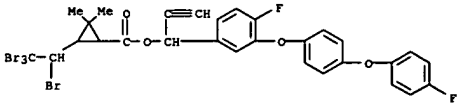
AB Twelve title esters (I; R = H, halo; R1 = H, F; R2 = H, cyano, HC.tplbond.C, R3 = halovinyl, haloethyl), effective insecticides and miticides at 500 ppm, were prepared Thus, 5.0 mmol II and 5.25 mmol (±)-III in MePh were added to a solution of 7.5 mmol NaCN and 1.1 mmol PhCH2N+Et3 Cl- in H2O at room temperature to give 2.07 g (±)-I (R = R1 = H; R2 = cyano, R3 = Cl2C:CH).

ACCESSION NUMBER: 1984:438168 CAPLUS
DOCUMENT NUMBER: 101:38168
TITLE: Cyclopropanecarboxylate esters as insecticides and miticides with low toxicity
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59042342	A2	19840308	JP 1982-153029	19820901
PRIORITY APPLN. INFO.:			JP 1982-153029	19820901

IT 90928-31-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 90928-31-7 CAPLUS
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1,2,2,2-tetrabromoethyl)-, 1-[4-fluoro-3-[4-(4-fluorophenoxy)phenoxy]phenyl]-2-propynyl ester (9CI) (CA INDEX NAME)

L68 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)

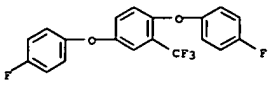


L68 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AB Reaction of phenols with Br2C6H3CF3 at 170-300° in the presence of Cu and alkali gave mono- and diphenoxybenzotrifluorides. Thus, 2,5- and 3,4-Br2C6H3CF3, powdered Cu, KI, and m-CF3C6H4OH at 200-20° gave 10.6 (m-CF3C6H4O)C6H4CF3, 25.4 (m-CF3C6H4O)C6H3BrCF3, and 42.4% (m-CF3C6H4O)2C6H3CF3 isomers.

ACCESSION NUMBER: 1975:170346 CAPLUS
DOCUMENT NUMBER: 82:170346
TITLE: Phenoxy derivatives of trifluoromethylbenzene
INVENTOR(S): Schlafke, Rolf; Jenkner, Herbert
PATENT ASSIGNEE(S): Chemische Fabrik Kalk G.m.b.H.
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

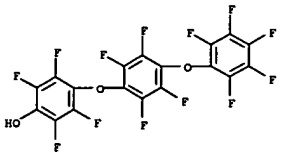
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2325878	A1	19741212	DE 1973-2325878	19730522
PRIORITY APPLN. INFO.:			DE 1973-2325878 A	19730522

IT **54846-39-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 54846-39-8 CAPLUS
CN Benzene, 1,4-bis(4-fluorophenoxy)-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



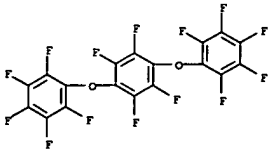
L68 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
GI For diagram(s), see printed CA Issue.
AB The PbO2 oxidation of pentafluorophenol gave the oxocyclohexadienyl phenyl ether (I). Na phenoxides (II and III) reacted with Br to give ethers (IV and V).

ACCESSION NUMBER: 1974:520135 CAPLUS
DOCUMENT NUMBER: 81:120135
TITLE: Polyfluorophenols. I. Mild oxidation of pentafluorophenol
AUTHOR(S): Denivelle, Leon; Huynh Anh Hoa
CORPORATE SOURCE: Lab. Chim. Text. Tinctoriale, Conservatoire Natl. Arts Metiers, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1974), (3-4, Pt. 2), 487-90
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT **53359-93-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53359-93-6 CAPLUS
CN Phenol, 2,3,5,6-tetrafluoro-4-(2,3,5,6-tetrafluoro-4-(pentafluorophenoxy)phenoxy]- (9CI) (CA INDEX NAME)



L68 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AB A number of perfluorinated and partially fluorinated phenyl and polyphenyl ethers were synthesized, characterized for thermal stability, fire resistance, and viscosity, and compared with their H analogs to assess the potential use of this class of compds. as functional fluids. Without exception, polyfluorination and perfluorination lower thermal stability; the decrease in stability depends on the position and number of fluorine substituents. The autoignition temperature and fire resistance are not improved over the H analog, and viscosity is degraded. These data coupled with the comparatively high melting points do not suggest a bright future for this class of compds. as useful functional fluids. 6 references.

ACCESSION NUMBER: 1968:77890 CAPLUS
DOCUMENT NUMBER: 68:77890
TITLE: Synthesis, thermal stability, flammability, and viscosity of some partially fluorinated and perfluorinated aromatic and polyaromatic ethers
AUTHOR(S): Richardson, George Albert; Blake, Edward S.
CORPORATE SOURCE: Monsanto Res. Corp., Dayton, OH, USA
SOURCE: Industrial & Engineering Chemistry Product Research and Development (1968), 7(1), 17-21
CODEN: IEPRA6; ISSN: 0196-4321
DOCUMENT TYPE: Journal
LANGUAGE: English
IT **6804-37-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 6804-37-1 CAPLUS
CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)



L68 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AB A mixture of 26.5 g. C6F6, 26.5 g. 85% KOH, and 75 ml. H2O was heated in a sealed bomb at 175° for 5 hrs. with agitation to give 33.1 g. C6F5OH, b. 144-5°. A mixture of 67 g. C6F5H, 21.6 g. KOH, 150 ml. pyridine, and 2 ml. H2O was refluxed 1 hr., treated with 21.6 KOH, and refluxed 24 hrs. to give 21 g. 2,3,5,6-tetrafluorophenol, b20 47°. Similarly refluxing 36 g. C6F5Me and 28 g. KOH in 300 ml. tert-BuOH gave 12 g. 2,3,5,6-tetrafluoro-p-cresol, m. 52°. Reaction of 20 g. C6F5I with 2 g. KOH and 1 ml. H2O in 100 ml. pyridine gave only one product, 2,3,5,6-tetrafluoro-4-iodophenol, m. 79-81°; benzoate m. 59-60.2°. Reaction of 66 g. C6F5Br with 28.5 g. KOH and 1 ml. H2O in 150 ml. pyridine, however, gave a mixture of products: 3.5 g. 2-bromo-3,4,5,6-tetrafluorophenol, m. 41-3° (3,5-dinitrobenzoate, m. 104-5°); and 11.5 g. 4-bromo-2,3,5,6-tetrafluorophenol (3,5-dinitrobenzoate m. 131-3°). Similarly, 100 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene on treatment with 5.6 g. KOH and 1 ml. H2O in 100 ml. pyridine gave 2.5 g. 2-chlorotrifluoro-α,α,α-trifluoro-o-cresol, b15 92-3°, n24D 1.4510; and 15 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-cresol, b15 102-3°, n24D 1.4510. The reactions of polyfluorobenzenes were then studied with alkoxides. A solution of 123.5 g. C6F5Br in 70 ml. pyridine was treated with a solution of 11.5 g. Na in 150 ml. MeOH during 1.5 hrs. and the mixture refluxed 15 hrs. and acidified with 1 l. 10% HCl to give 66 g. 4-bromo-2,3,5,6-tetrafluoroanisole, b5 79-81°, n25D 1.4812. Similarly, a mixture of 10 g. C6F5I in 50 ml. pyridine and 0.8 g. Na in 15 ml. MeOH on refluxing for 3 hrs. gave 1.5 g. unchanged C6F5I and 5.5 g. 2,3,5,6-tetrafluoro-4-iodoanisole (I), b20 113-15°, n22D 1.5229. Refluxing 1 g. I with 1 g. activated Cu powder for 12 min. gave 0.2 g. octafluoro-4,4'-dimethoxybiphenyl, m. 90-1.2°. To a cold solution of 9 g. Na in 250 ml. PhCH2OH was added 75 g. C6F6 and the mixture refluxed 24 hrs. to give 30 g. benzyl pentafluorophenyl ether (II), m. 44°. A better yield was obtained when a solution of 4.6 g. Na and 22 g. PhCH2OH in 250 ml. tert-BuOH was refluxed with 40 g. C6F6 for 40 hrs. to give 33 g. II. A solution of 8 g. C6F6 in 30 ml. HCONMe2 was treated with 5.28 g. PhOK and the mixture refluxed 0.5 hr. to give 1 g. 2,3,5,6-tetrafluoro-1,4-diphenoxybenzene, m. 147-9°, and 3.5 g. 2,3,4,5,6-pentafluorophenyl phenyl ether, (III), m. 29°. III was also obtained by heating a mixture of 11 g. C6F5OK, 15 g. PhBr, and 1 g. Cu at 210° in a sealed bomb. A solution of 6 g. C6F5OK and 12.8 g. C6F6 in 30 ml. HCONMe2 was refluxed 14 hrs. to give 1.5 g. bis(perfluorophenyl) ether, m. 67-9°, and a second product, m. 145-8°, probably p-bis(pentafluorophenoxy)2,3,5,6-tetrafluorobenzene. Similarly, a solution of 0.6 g. Na in 50 ml. EtOH refluxed with 5.3 g. C6F5NMe2 2 hrs. gave 5.1 g. 4-ethoxy-2,3,5,6-tetrafluoro-N,N-dimethylaniline, b. 34°. Reactions with amines were next investigated. A mixture of 280 g. C6F6 and 400 ml. 28% aqueous NH3 was rocked in a sealed bomb for 2 hrs. at 235° to give 236 g. C6F5NH2, m. 34°, and 28 g. tetrafluorophenylenediamine (sublimed 75°/1 mm.) shown by its nuclear magnetic resonance spectrum to be essentially the meta isomer mixed with a small amount of the para isomer. Similarly, heating a mixture of

L68 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN (Continued)
56 g. C6F6 and 110 ml. 30% aq. MeNH2 at 220° for 3 hrs. gave 59% C6F5NHMe, b. 170-2°, and 25% 2,3,5,6-tetrafluoro-N,N'-diphenylphenylenediamine, m. 94°. The reaction product obtained by heating 50 g. C6F6 and 110 ml. 25% aq. Me2NH at 235° for 1 hr. was distd. at 1 mm. pressure and five fractions were collected. The first fraction (65%), b1 88°, was C6F5NMe2. Fraction 2, b1 88-126°, was shown by vapor phase chromatography to be C6F5NMe2 with 3 other compds. Fraction 3, b1 126-134°, consisted of 3 isomers of bis(dimethylamino)tetrafluorobenzene with the meta-isomer predominating. Fraction 4, b1 134-40°, contained equal amts. of the meta and para isomers. Fraction 5, b1 140-8°, was pure para isomer. The meta and para isomers could be sepd. by vapor phase chromatography. Similarly, heating a mixt. of 30 g. C6F5Br and 70 ml. 28% NH4OH at 200° for 2 hrs. gave 22 g. p-bromotetrafluoroaniline, m. 61°. Heating 16 g. C6F5I and 30 ml. 8% NH4OH at 165° for 2 hrs. gave 7.6 g. tetrafluoro-p-iodoaniline, m. 77°. Benzyl pentafluorophenyl ether (20 g.) was heated with large excess of 28% NH4OH to give 3 g. p-(benzyloxy)tetrafluoroaniline, m. 97°. Similarly, heating 50 g. 2-chlorotetrafluoro-α,α,α-trifluorotoluene and 120 ml. 28% NH4OH at 21° for 2 hrs. gave 22 g. 2-chlorotrifluoro-α,α,α-trifluoro-p-toluidine, which decompd. readily at room temp. in the presence of air. To 100 ml. anhyd. NH3 at -70° were added 0.1 g. Fe(NO3)3 and 2.99 g. Na and, after disappearance of the blue color, 25 g. C6F5OMe during 45 min. After 5 hrs. at -70° the reaction mixt. was worked up to give 7 g. unreacted C6F5OMe, 2.8 g. tetrafluoro-p-anisidine, m. 75-6.5°, 1.2 g. 4,4'-dimethoxyoctafluorodiphenylamine, m. 78-9°, and 2.2 g. 4,4',4''-trimethoxydodecafluorotriphenylamine, b. 157-9°, n23D 1.5005. Diazotization of C6F5NH2 required concd. acids since the salts of the amine hydrolyzed very readily in dil. solns. In 48% HBr, diazotization of C6F5NH2 gave C6F5N:NNHC6F5, probably owing to slow diazotization. The reaction was temp.-dependent, the diazoaminobenzene being formed much faster at 10° than at -10°. The product decompd. in warm HBr to give 5.4% C6F5Br and a mixt. of o- and p-dibromotetrafluorobenzenes. In concd. H2SO4 the reaction was very slow even at 25°. Addition of HOAc hastened it. Deamination with hypophosphorus acid gave a mixt. probably of C6F5H and C6H2F4. Better diazotization could be carried out in liquid HF and the diazo product underwent successful Sandmeyer reaction. A soln. of 20 g. C6F5NH2 in 75 ml. anhyd. HF at -20° was treated with 7.27 g. NaNO2 during 30 min. After stirring for 1 hr. at -10° the mixt. was treated with 17.6 g. KI during 30 min. and allowed to warm to 25° in 1 hr. to give 16.5 g. C6F5I, b35 77-9°. Use of 12 g. KBr and 15 g. Cu2Br2 instead of KI gave 35% C6F5Br. The reaction of diazotized amine with C6F5OLi gave C6F5N:N(O)C6F5, which decompd. on removal of solvent. The Sandmeyer nitrile synthesis was not successful. A soln. of 10 g. C6F5NH2 in 100 ml. HOAc was oxidized with 25 ml. 30% H2O2 at 25° for 24 hrs. to give decafluoroazoxybenzene (IV), m. 53-4°. A mixt. of 5 g. IV, 15 g. Zn powder, 5 g. NH4Cl, 10 ml. H2O, and 75 ml. 95% EtOH refluxed 30 min. gave 2 g. decafluoroazobenzene, m. 57-9°. C6F6 reacted readily with organolithium compds. A soln. of MeLi, prepd. from 4.5 g. Li and 43 g. MeI in 50 ml. ether, was cooled to -10° to -20°, added dropwise to a soln. of 60 g. C6F6 in 250 ml. pentane, and stirred for 17 hrs. at room temp. to give 34 g. C6F5Me, b. 115°. Similarly, reaction of BuLi, prepd. from 1.86 g. Li and 18.3 g. BuBr in 30 ml. ether, with 25.3 g. C6F6 in 25 ml. ether gave 10.5 g. unreacted C6F6, 7 g. C6F5Bu, b25 86-7°, n20D 1.4229, and 2.5 g. of a compd., b1 230°, n20D 1.4683, probably impure tributyldifluorobenzene. Similarly, 32.7 g. C6F6 in 150 ml. ether with 0.18 mole PhLi in 250 ml. ether gave 8.5 g. 2,3,5,6-tetrafluoro-p-terphenyl, m. 220°, and 33 g. C6F5Ph, m. 69°. A similar reaction of 18.6 g. C6F6 and isopropenyllithium prepd. from 12.1 g. 2-bromopropene gave 5 g. 2,3,4,5,6-pentafluoro-α-methylstyrene, b52 72-4°. With vinyllithium, prepd. from 0.1 mole PhLi and 0.025 mole tetravinyltin, 18.6 g. C6F6 gave 4 g. unreacted C6F6 and 20% C6F5CH:CH2, b25 34°. LiAlH4 redn. of 21 g. C6F6 in ether gave 17 g. of a mixt. of C6F6 and C6F5H which was sepd. by vapor phase chromatography to give 7.5 g. C6HF5. All the products in all above reactions were studied by infrared and nuclear magnetic resonance spectroscopy. The mechanism of reaction and the directional effects were discussed.

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AUTHOR(S): Wall, Leo A.; Pummer, Walter J.; Fearn, James E.; Antonucci, Joseph M.
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DOCUMENT TYPE: Journal
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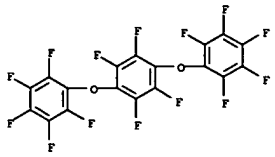
IT 6804-37-1, Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)-(?)
(preparation of)

RN 6804-37-1 CAPLUS

CN Benzene, 1,2,4,5-tetrafluoro-3,6-bis(pentafluorophenoxy)- (7CI, 8CI) (CA INDEX NAME)



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